

US EPA ARCHIVE DOCUMENT

Split Sampling
Field Report

Chemical Waste Management, Incorporated
Kettleman Hills, California

30 November 2009

U.S. Environmental Protection Agency
Region 9
Waste Management Division

1.0 INTRODUCTION

The purpose of this split sampling effort was to assess polychlorinated biphenyl (PCB) congeners in soil at the perimeter of the Chemical Waste Management Kettleman Hills Facility (KHF), which is located approximately 3.5 miles southwest of Kettleman City, California (Figure 1). At the request of EPA, KHF personnel collected samples of soil, air, and vegetation in support of their application for renewal of a permit to process and dispose of PCBs. The samples were analyzed for a list of 12 PCB congeners identified by the World Health Organization (WHO) as congeners of concern. More information on congeners is included in Section 4.1.

During the March 31 to April 1, 2009, field sampling event, EPA personnel collected soil samples from the same locations (“split samples”) as KHF, and then submitted the samples to EPA’s Region 3 laboratory in Fort Meade, Maryland, for analysis of PCB congeners. EPA split samples serve as a check of a facility’s laboratory results and provide an independent evaluation of environmental data. Variations in analytical results between an EPA laboratory and a commercial laboratory may be the result of differences in analytical capability, experience with the method, sample homogeneity, sample collection/compositing techniques, or other factors. The EPA results are not intended to serve as a “referee” of commercial laboratory results.

The EPA Region 3 laboratory analyzed the soil samples by EPA Method 1668.

1.1 EPA Personnel

The following EPA personnel participated in the March 31 – April 1, 2009 soil sampling effort:

Kevin Wong
Katherine Baylor
John Beach
Mathew Plate

2.0 FACILITY BACKGROUND

The Chemical Waste Management, Incorporated, Kettleman Hills Facility (KHF) is located in Kings County, California, southwest of the intersection of Interstate 5 and Highway 41 (Figure 1). The facility owns and occupies 1,600 acres of property, of which 499 acres are located inside the conditional use boundary which is permitted for waste management operations. KHF is a commercial Class I/II hazardous waste/designated waste treatment, storage, and disposal facility. KHF has applied to the California Department of Toxic Substances Control (DTSC) for a permit to expand their hazardous waste landfill, Unit B-18. DTSC is the authorizing agency in California for hazardous waste landfill permitting. EPA regulates the disposal of PCBs under the Toxic Substances Control Act (TSCA), and is responsible for the PCB permit renewal associated with the B-18 landfill. PCBs are regulated under TSCA. The 53-acre B-18 unit has accepted both RCRA- and TSCA-regulated PCB waste since 1991.



Figure 1. Site Location

The following (*in italics*) is a description of the operational history of the Kettleman Hills Facility from the "*Draft Dioxin-Like Polychlorinated Biphenyl Congeners Study Workplan, Chemical Waste Management, Inc. Kettleman Hills Facility*," March 2009.

In 1975, the McKay Trucking Company began disposal operations at KHF when they were issued a permit to use a 60-acre portion of the site as a petroleum waste disposal facility. Environmental Disposal Services (EDS) purchased McKay trucking Company in 1978 and expanded both the size and operations at KHF making it a Class I disposal site. In April 1979, CWMI purchased and began operating the KHF site. At that time, it was a 1,280-acre facility that was authorized as a treatment, storage, and disposal facility for designated wastes. Also in 1979, CWMI obtained authorization to operate the site as a hazardous waste management facility, and hazardous wastes were permitted for treatment, storage, and disposal at KHF. Operations consisted of landfilling solid waste, and use of evaporation ponds/tanks for liquid waste.

In the early 90s a project was undertaken to combine closure of a number of landfills and evaporation ponds. The Combined Closure Area was completed in 1996, and under the 69-acre closure cap it includes landfill units B-1, B-4, B-5, B-6, B-7, B-8, B-9 with expansions, B-10, and B-11; ponds P-5, P-12, P-12A, P-13, and P-17; and spreading area S-3. There are no PCB

disposal units located in the combined closure area. In April and July 1997, KHF submitted timely applications to renew existing TSCA Approvals, which included the currently operating PCB Flushing/Storage Unit, and the B-18 Landfill Unit. In October 2003, during a thorough and comprehensive permit renewal process, KHF requested a Coordinated Approval as per the recommendation of USEPA-IX TSCA Group. In February 2007, USEPA-IX released a Draft Coordinated Approval, along with a Draft Refined Environmental Justice Assessment.

Throughout the years KHF has been in operation, numerous environmental sampling studies and on-going compliance monitoring has been conducted to measure potential off-site impacts to air, groundwater, stormwater runoff, soil, human health, and ecological receptors. These monitoring programs, sampling studies, and impact analyses have either been voluntarily performed or required by the numerous State and Federal regulations to which KHF is subject. Two such studies, which included monitoring for PCB impacts, were performed as a result of compliance requirements related to KHF's RCRA Part B permit. These include the (1) 1994 Topographical, Meteorological and Airborne Contaminant Characterization at Kettleman Hills Facility; and the (2) currently ongoing Ambient Air Monitoring Program (AAMP).

2.1 Geological Information

Soils at KHF include Kettleman Loam, Kettleman-Cantua Complex, and Mercey Loam. Kettleman Loam is derived from sandstone or shale. The surface soil layer is typically 13 inches thick and well drained. The Kettleman-Cantua Complex is made up of about 50% Kettleman Loam and 40% Cantua coarse sandy loam. It is similar in appearance to the Kettleman Loam. Mercey Loam is also derived from sandstone or shale, is light yellowish-brown and about 3 inches thick. All three of the loams present at KHF are well drained and contain minimal fines. Typically presenting as loose sand, the material is easy to sample and composite because there are few clay clumps or gravel.

2.2 Meteorology

The 2008 wind rose (plot of windspeed and wind direction) is shown in Figure 2. Wind speeds are generally less than 17 knots (approximately 20 miles per hour). The wind direction is variable, with a slight predominance from the northwest. Local (micro-scale) meteorological conditions on and around the site are variable due to the complex topography and may not be represented well in a single wind rose.

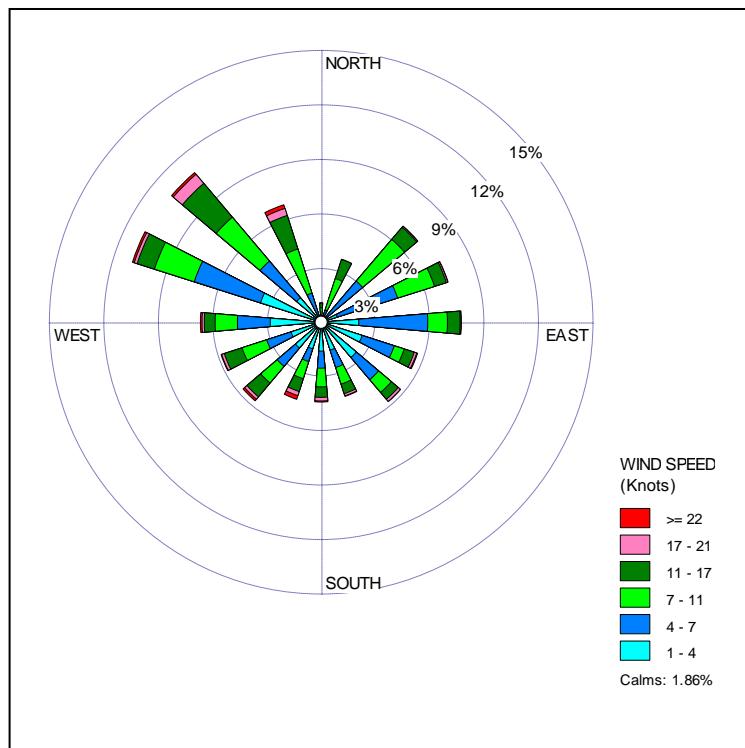


Figure 2. 2008 KHF Wind Rose. The wind direction plotted is the direction the wind is blowing from. Meteorology data source: Chemical Waste Management, Kettleman Hills Facility

2.3 Environmental and/or Human Impact

Residents of Kettleman City have expressed concern that wind-blown PCB particles could migrate from the B-18 landfill toward Kettleman City, which is approximately 3.5 miles from KHF. To assess potential human health impacts, KHF collected and analyzed samples of soil, vegetation, and air. The soil samples are intended to measure the impact of past and current disposal practices. The vegetation (grass) samples are intended to assess the potential for grazing cattle to uptake PCBs through ingestion. Cattle grazing occurs seasonally (i.e., spring time) on land adjacent to KHF. The cattle are raised for human consumption. Air (particulate and vapor) samples are being collected continuously over a 12-month period, and are intended to measure current disposal practices. Of the three media that KHF sampled (soil, vegetation, and air), EPA only collected split samples of soil because the EPA laboratory does not have the capability to analyze vegetation or air samples.

Ecological receptors, including the endangered species Blunt-nosed Leopard Lizard and San Joaquin Kit Fox, are potentially at risk from airborne deposition and/or stormwater transport of aerially-deposited PCBs. Additionally, raptor species (e.g., hawks, owls) feed on a substantial rodent population near the landfill.

3.0 FIGURES, PHOTOGRAPHS, AND TABLES

This report includes figures, photographs, and tables, which are listed below in the order in which they appear in the document. Attachment 1, which includes both the EPA and CWM-KHF laboratory reports, is attached to the end of the report.

Figure 1: Site Location

Figure 2: 2008 KHF Wind Rose

Figure 3: Soil and Vegetation Sampling Locations

Figure 4: Structure of PCB Molecule

Figure 5: Soil PCB Analytical Results

Figure 6: Graph of KHF PCB Congeners Compared to Rural U.S. soils

Photograph 1: Drainage swale below B-18 landfill

Photograph 2: Vegetation sample

Photograph 3: Collection of soil samples

Photograph 4: Rattlesnake at NW-8 sampling location

Table 1: Toxicity Equivalent Factors (TEFs) for PCB dioxin-like congeners

Table 2: Summary of Analytical Results

Table 3: Method Blank Results

Table 4. Field Duplicate Results

Attachment 1: Laboratory Analytical Reports

4.0 SAMPLING METHOD

Soil samples were collected from 80 locations, including 70 on-site samples near the KHF fence line and 10 samples distributed in a drainage swale southeast of the B-18 landfill (Photograph 1, Figure 3).

The inside boundary of KHF consists of a 30- to 60-foot wide earthen road that serves as a fire break for the facility. Soil samples were collected near the road, but outside of the current or recently graded soil. Each group of ten soil samples was then homogenized (mixed) to obtain a single composite analytical sample for each of the eight areas (e.g., north, northeast) shown on Figure 3. The eight areas include four generally upwind boundary areas, three potentially impacted downwind boundary areas, and one zone (drainage swale) immediately downwind of the B-18 landfill. Upwind and downwind directions are variable at KHF. The upwind locations are designated as west, northwest, north, and northeast. The downwind locations are designated as southwest, south, and southeast. EPA collected split soil samples from six of the eight areas sampled by KHF, including upwind locations designated North, Northeast, and Northwest, and downwind locations South, Southwest, and B-18. A field duplicate sample, designated B-99, was collected from the B-18 location.

At each sampling location, KHF personnel collected vegetation (primarily grass) samples prior to collecting the soil samples (Photo



Photograph 1. Drainage swale below B-18 landfill (center background)

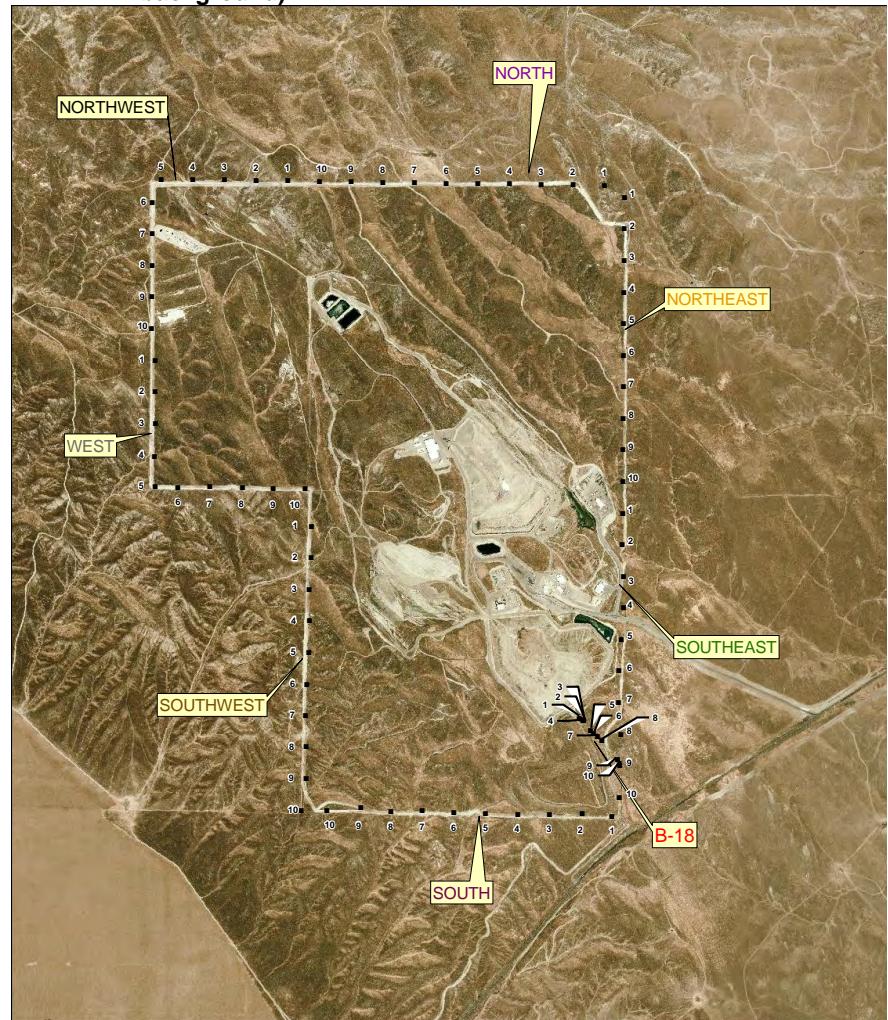


Figure 3. Soil and Vegetation Sampling Locations

2). Vegetation samples were collected from nine points within a one meter square area (i.e., one meter by one meter). Vegetation samples were collected by clipping the grass or other plant material with a pair of decontaminated scissors, and then using the scissors to transfer the sample to a 32-oz glass jar. Soil samples were collected from within the same one meter square vegetation sampling area. Each soil sample consisted of nine small aliquots of soil collected from within the upper two inches of soil within the one meter square area. The nine soil aliquots were composited within a stainless steel bowl.

EPA and KHF used different methods to homogenize the samples, which may have contributed to variation in the sample results. EPA personnel homogenized the discrete soil samples in the field (i.e., while at KHF), while the KHF personnel submitted the individual discrete samples to the analytical laboratory (TestAmerica) for homogenization at the laboratory. In general, laboratory homogenization is preferred over field homogenization, as the laboratory is a controlled environment and the samples are more thoroughly homogenized than is feasible in the field. Due to EPA's need to retain custody of the samples, EPA personnel decided to field-homogenize the samples. Each set of ten discrete samples was thoroughly mixed using a decontaminated stainless steel spoon in a decontaminated stainless steel bowl (Photo 3). This field-compositing technique is not as rigorous as the laboratory compositing method, where each individual (discrete) soil sample was homogenized in a blender, and then a subsample (three grams) from each of the 10 discrete samples was homogenized in a blender.

After collection and homogenization, the EPA samples were packaged in a cooler with ice and sent via FedEx to EPA's Region 3 laboratory in Fort Meade, Maryland for analysis of PCB congeners by EPA Method 1668. The samples were received by the EPA Region 3 lab intact and properly chilled. EPA Method 1668 may be found at the following link:
<http://www.epa.gov/waterscience/methods/method/files/1668.pdf>



Photograph 2. Vegetation sample

EPA personnel homogenized the discrete soil samples in the field (i.e., while at KHF), while the KHF personnel submitted the individual



Photograph 3. Collection of soil samples

4.1 PCB Congeners

The contaminants of concern are the 1998 World Health Organization (WHO) PCB congeners (below). Previous testing for PCBs as Aroclors (trade name for mixtures of PCB congeners) at KHF has not detected PCBs. In recent years, however, researchers have determined that analysis of PCBs as congeners is a more useful method to determine potential impacts to human or ecological receptors than the standard broad-spectrum Aroclor testing that has been the environmental standard for decades. Each congener is a unique, specific chemical denoted by the position of chlorine atoms within the benzene-ring structure of polychlorinated biphenyls (Figure 4). There are 209 possible combinations, hence, 209 congeners. Of the 209 possible PCB congeners, WHO has identified 12 that are the most significant to human health, the "dioxin-like" congeners. These 12 congeners were the target analytes for this project. The CAS is the Chemical Abstracts Services unique identification number for the chemical.

- Congener 77 – 3,3',4,4'-Tetrachlorobiphenyl (CAS 32598-13-3)
- Congener 81 - 3,4,4',5-Tetrachlorobiphenyl (CAS 70362-50-4)
- Congener 105 - 2,3,3',4,4'-Pentachlorobiphenyl (CAS 32598-14-4)
- Congener 114 - 2,3,4,4',5-Pentachlorobiphenyl (CAS 74472-37-0)
- Congener 118 - 2,3',4,4',5-Pentachlorobiphenyl (CAS 31508-00-6)
- Congener 123 - 2,3',4,4',5'-Pentachlorobiphenyl (CAS 65510-44-3)
- Congener 126 - 3,3',4,4',5-Pentachlorobiphenyl (CAS 57465-28-8)
- Congener 156 - 2,3,3',4,4',5-Hexachlorobiphenyl (CAS 38380-08-4)
- Congener 157 - 2,3,3',4,4',5'-Hexachlorobiphenyl (CAS 69782-90-7)
- Congener 167 - 2,3',4,4',5,5'-Hexachlorobiphenyl (CAS 52663-72-6)
- Congener 169 - 3,3',4,4',5,5'-Hexachlorobiphenyl (CAS 32774-16-6)
- Congener 189 - 2,3,3',4,4',5,5'-Heptachlorobiphenyl (CAS 39635-31-9)

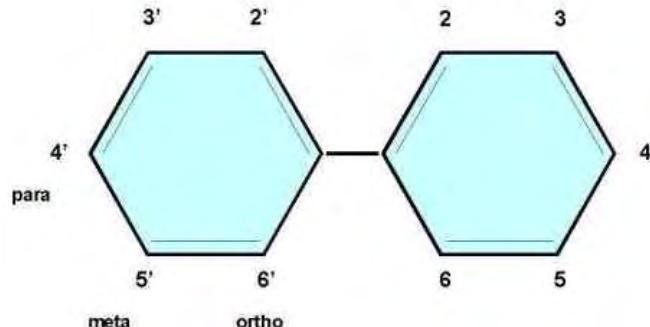


Figure 4. Structure of PCB Molecule

Dioxin and dioxin-like compounds (DLCs), including polychlorinated dibenzo-*p*-dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs), and polychlorinated biphenyls (PCBs), are structurally and toxicologically related halogenated dicyclic aromatic hydrocarbons. Because the combined effects of these compounds have been found to be dose additive, the U.S. EPA has recommended use of the Toxic Equivalency Factor (TEF) Methodology and the World Health Organization's (WHO's) TEFs to evaluate the risks associated with exposure to mixtures of these compounds for human health (U.S. EPA 1989, 2003) and ecological risk assessments (U.S.

EPA, 2008). The WHO has used a process based on scientific consensus to develop TEFs for mammals, birds, and fish and has re-evaluated them on a schedule of approximately every five years (Ahlborg et al., 1994; Van den Berg et al., 1998, 2006; also see WHO's website for the dioxin TEFs, available at: http://www.who.int/ipcs/assessment/tef_update/en/). The U.S. EPA is updating its human health approach by adopting the mammalian TEFs for DLCs recommended in the WHO's 2005 reevaluation of TEFs for human exposures to DLCs (Van den Berg et al., 2006). TEFs for the 12 WHO congeners are listed in Table 1 below.

Table 1. Toxicity Equivalent Factors (TEFs) for PCB dioxin-like congeners

Compound (Congener Number)	TEF
3,3',4,4'-TCB (77)	0.0001
3,4,4',5-TCB (81)	0.0003
3,3',4,4',5-PeCB (126)	0.1
3,3',4,4',5,5'-HxCB (169)	0.03
2,3,3',4,4'-PeCB (105)	0.00003
2,3,4,4',5-PeCB (114)	0.00003
2,3',4,4',5-PeCB (118)	0.00003
2',3,4,4',5-PeCB (123)	0.00003
2,3,3',4,4',5 -HXCB (156)	0.00003
2,3,3',4,4',5'-HxCB (157)	0.00003
2,3',4,4',5,5'-HxCB (167)	0.00003
2,3,3',4,4',5,5'-HpCB (189)	0.00003

5.0 HEALTH AND SAFETY

A health and safety plan was prepared prior to the field sampling event. The only significant safety concern was the close proximity of two rattlesnakes, encountered at field locations NW-3 and NW-8 (Photo 4). No EPA personnel were bitten by rattlesnakes during the field event.



Photograph 4. Rattlesnake at NW-8 sampling location

After sufficient split samples were collected from the perimeter of the facility and the B-18 area to meet project goals, the on-going snakebite risk to personnel contributed to the EPA team's decision to refrain from sampling in two areas, including the west and southeast areas (Figure 3).

6.0 ANALYTICAL RESULTS

The analytical results of the PCB congener study of soils at KHF is summarized in Table 2 and shown geographically on Figure 5. Both the EPA and Chemical Waste Management KHF (CWM-KHF) results are summarized in Table 2 and Figure 5. The EPA samples were analyzed by the EPA Region 3 laboratory in Fort Meade, Maryland. The CWM-KHF samples were analyzed by TestAmerica Laboratories of West Sacramento, California. Laboratory qualifiers and additional information are included in the laboratory reports in Attachment 1. Regional Screening Levels (RSLs) for industrial and residential sites are included in Table 2 for reference. EPA's RSLs are for the Superfund/RCRA programs. They are risk-based concentrations derived from standardized equations combining exposure information assumptions with EPA toxicity data. RSLs are considered by the Agency to be protective for humans (including sensitive groups) over a lifetime; however, RSLs are not always applicable to a particular site and do not address non-human health endpoints, such as ecological impacts. Chemical Waste Management has submitted a risk assessment report (human health and ecological) that is currently under review by EPA.

Table 2. Summary of Analytical Results

Sample	Congener Number	EPA	CWM - KHF	Units
North	77	5.1 B	< 10	pg/g
Northeast	77	9.1 B	< 15	pg/g
Northwest	77	9.3 B	< 10	pg/g
West	77	no sample	< 10	pg/g
South	77	27.8 B	< 10	pg/g
Southwest	77	420	< 10	pg/g
Southeast (KHF duplicate)	77	no sample	< 10 / < 11	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	77	68.9 / 32 B	< 18	pg/g
Industrial Regional Screening Level (RSL)	77	110,000	110,000	pg/g
Residential Regional Screening Level (RSL)	77	34,000	34,000	pg/g
Sample	Congener Number	EPA	CWM - KHF	Units
North	81	< 3.02	< 10	pg/g
Northeast	81	4.2 B	< 10	pg/g
Northwest	81	< 2.95	< 10	pg/g
West	81	no sample	< 10	pg/g
South	81	10.4 B	< 10	pg/g
Southwest	81	12.3 B	< 10	pg/g
Southeast (KHF duplicate)	81	no sample	< 2.2 / < 2.2	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	81	5.27 / 4.68 B	< 10	pg/g

Industrial Regional Screening Level (RSL)	81	110,000	110,000	pg/g
Residential Regional Screening Level (RSL)	81	34,000	34,000	pg/g
Sample	Congener Number	EPA	CWM - KHF	Units
North	105	37.8 B	12	pg/g
Northeast	105	24.5 B	65	pg/g
Northwest	105	72.3 B	< 10	pg/g
West	105	no sample	10	pg/g
South	105	126 B	21	pg/g
Southwest	105	3130	11	pg/g
Southeast (KHF duplicate)	105	no sample	33 / 28	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	105	340 / 97.3 B	62	pg/g
Industrial Regional Screening Level (RSL)	105	110,000	110,000	pg/g
Residential Regional Screening Level (RSL)	105	34,000	34,000	pg/g
Sample	Congener Number	EPA	CWM - KHF	Units
North	114	1.5	< 10	pg/g
Northeast	114	6.8	< 10	pg/g
Northwest	114	< 2.95	< 10	pg/g
West	114	no sample	< 10	pg/g
South	114	13.8	< 10	pg/g
Southwest	114	13.6	< 10	pg/g
Southeast (KHF duplicate)	114	no sample	< 2.2 / < 2.2	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	114	11.4 / 9.5	< 10	pg/g
Industrial Regional Screening Level (RSL)	114	2300	2300	pg/g
Residential Regional Screening Level (RSL)	114	680	680	pg/g
Sample	Congener Number	EPA	CWM - KHF	Units
North	118	28.5 B	19	pg/g
Northeast	118	41.2 B	100	pg/g
Northwest	118	20.1 B	18	pg/g
West	118	no sample	19	pg/g
South	118	79.8 B	29	pg/g
Southwest	118	489	15	pg/g
Southeast (KHF duplicate)	118	no sample	46 / 51	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	118	321 / 213	85	pg/g
Industrial Regional Screening Level (RSL)	118	110,000	110,000	pg/g
Residential Regional Screening Level (RSL)	118	34,000	34,000	pg/g
Sample	Congener Number	EPA	CWM - KHF	Units
North	123	1.2	< 10	pg/g
Northeast	123	6.5	<10	pg/g

Northwest	123	0.9	< 10	pg/g
West	123	no sample	< 10	pg/g
South	123	11.8	< 10	pg/g
Southwest	123	37.6	< 10	pg/g
Southeast (KHF duplicate)	123	no sample	< 3.6 / < 5.4	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	123	8.59 / 6.67	< 15	pg/g
Industrial Regional Screening Level (RSL)	123	110,000	110,000	pg/g
Residential Regional Screening Level (RSL)	123	34,000	34,000	pg/g
Sample	Congener Number	EPA	CWM - KHF	Units
North	126	2.2	< 10	pg/g
Northeast	126	11.6	< 10	pg/g
Northwest	126	< 2.95	< 10	pg/g
West	126	no sample	< 10	pg/g
South	126	22.6	< 10	pg/g
Southwest	126	36.9	< 10	pg/g
Southeast (KHF duplicate)	126	no sample	< 2.2 / < 2.2	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	126	12.4 / 12.6	< 10	pg/g
Industrial Regional Screening Level (RSL)	126	110	110	pg/g
Residential Regional Screening Level (RSL)	126	34	34	pg/g
Sample	Congener Number	EPA	CWM - KHF	Units
North	156 / 157	11.2 B	< 10	pg/g
Northeast	156 / 157	38.6 B	29	pg/g
Northwest	156 / 157	5.3 B	< 10	pg/g
West	156 / 157	no sample	< 10	pg/g
South	156 / 157	72.5	< 10	pg/g
Southwest	156 / 157	107	< 10	pg/g
Southeast (KHF duplicate)	156 / 157	no sample	10 / 13	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	156 / 157	122 / 100	31	pg/g
Industrial Regional Screening Level (RSL)	156 / 157	2,300	2,300	pg/g
Residential Regional Screening Level (RSL)	156 / 157	680	680	pg/g
Sample	Congener Number	EPA	CWM - KHF	Units
North	167	5.4 B	< 10	pg/g
Northeast	167	18.2 B	16	pg/g
Northwest	167	3.0 B	< 10	pg/g
West	167	no sample	< 10	pg/g
South	167	32.7	< 10	pg/g
Southwest	167	51.8	< 10	pg/g
Southeast (KHF duplicate)	167	no sample	2.7 / 5.2	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	167	57 / 44.8	13	pg/g
Industrial Regional Screening Level (RSL)	167	110,000	110,000	pg/g

Residential Regional Screening Level (RSL)	167	34,000	34,000	pg/g
Sample	Congener Number	EPA	CWM - KHF	Units
North	169	1.7 B	< 10	pg/g
Northeast	169	14.8 B	< 10	pg/g
Northwest	169	< 2.95	< 10	pg/g
West	169	no sample	< 10	pg/g
South	169	27.6	< 10	pg/g
Southwest	169	< 3.65	< 10	pg/g
Southeast (KHF duplicate)	169	no sample	< 2.2 / < 2.2	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	169	7.84 / 10.3 B	< 10	pg/g
Industrial Regional Screening Level (RSL)	169	110,000	110,000	pg/g
Residential Regional Screening Level (RSL)	169	34,000	34,000	pg/g
Sample	Congener Number	EPA	CWM - KHF	Units
North	189	2.6 B	< 10	pg/g
Northeast	189	16.5 B	< 10	pg/g
Northwest	189	< 2.95	< 10	pg/g
West	189	no sample	< 10	pg/g
South	189	31.6	< 10	pg/g
Southwest	189	27.1	< 10	pg/g
Southeast (KHF duplicate)	189	no sample	2.6 / 4.3	pg/g
B-18 / B-99 (B-99 is EPA duplicate)	189	30 / 29.5	< 10	pg/g
Industrial Regional Screening Level (RSL)	189	110,000	110,000	pg/g
Residential Regional Screening Level (RSL)	189	34,000	34,000	pg/g

x / y = sample / duplicate

< x = analyte not detected. The associated value is the laboratory quantitation limit

B = Not detected substantially above (10 times) the level reported in the method blank.

Regional Screening Levels (April 2009): <http://www.epa.gov/region09/superfund/prg/>

Note: laboratory data qualifiers are included in the laboratory analytical reports in Attachment 1.

6.1 Comparison of EPA and CWM-KHF Data

In general, the EPA Region 3 laboratory reported higher concentrations of congeners than CWM-KHF. The variation in results may be the result of a combination of factors, including soil sample heterogeneity, the compositing method used (field vs. laboratory composite), experience with the method, analytical variability, and other technical reasons. The very low quantitation limits (pg/g, or approximately part per trillion levels) tend to exaggerate the differences in analytical results. Overall, the analytical results reported by both laboratories were quite low (less than one part per billion), with the exception of EPA's result for congener 105 in the Southwest sample, which is analytically uncertain (Section 7.0).

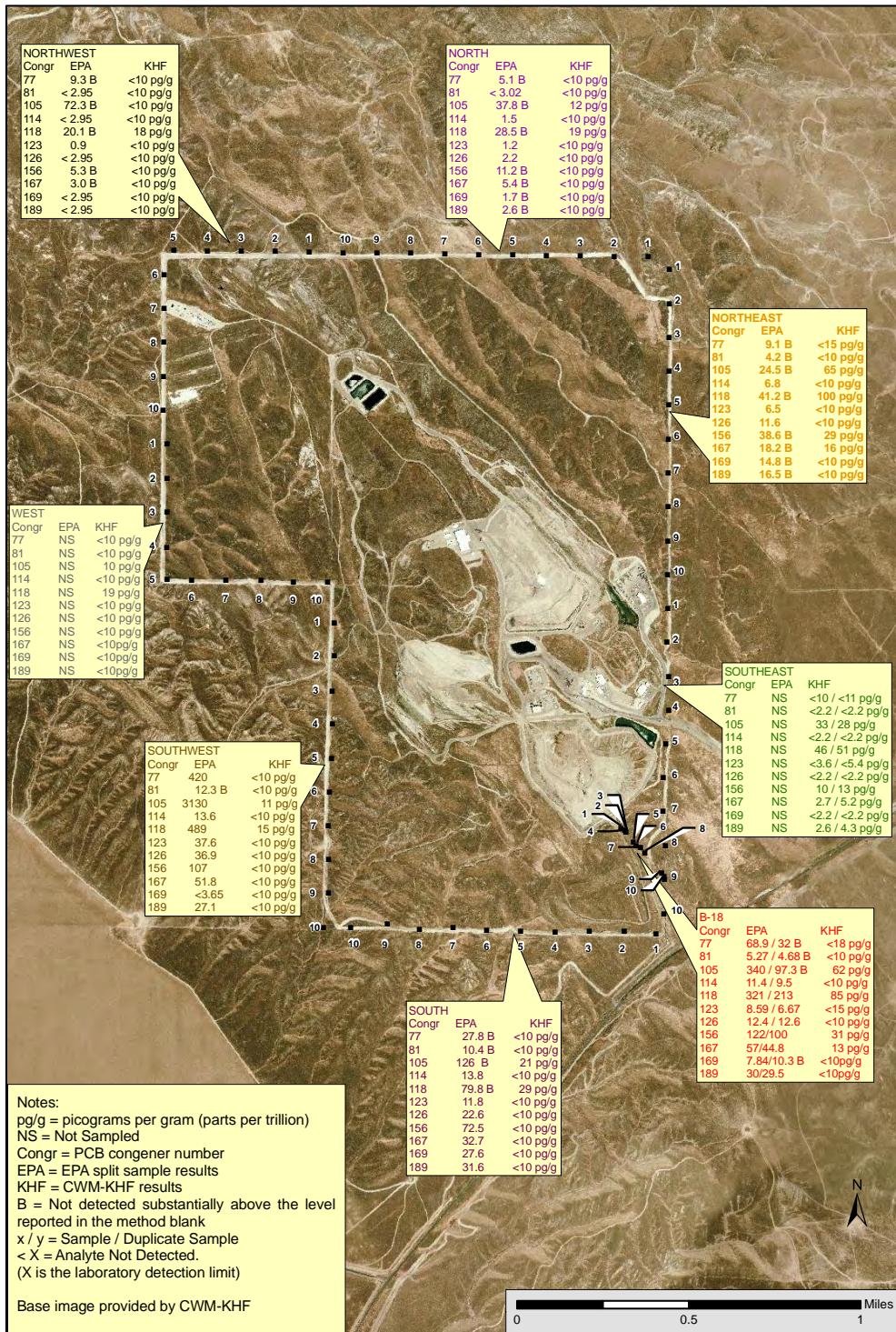


Figure 5. Soil PCB Analytical Results

6.2 Comparison of KHF data set to PCB Congeners in rural area soils of the United States

PCBs are anthropogenic (man-made) compounds. Although now banned, decades of PCB use in a wide variety of applications has resulted in the worldwide distribution of PCB congeners. U.S. EPA conducted a study of PCB congeners in rural areas across the United States. The study, which was released in 2007, is titled “*Pilot Survey of Levels of Polychlorinated Dibenzo-p-dioxins, Polychlorinated Dibenzofurans, Polychlorinated Biphenyls, and Mercury in Rural Soils of the United States.*” The EPA document number is EPA/600/R-05/048F.

PCB congener data (maximum values) for the KHF samples and U.S. rural data set is shown in the graph in Figure 6.

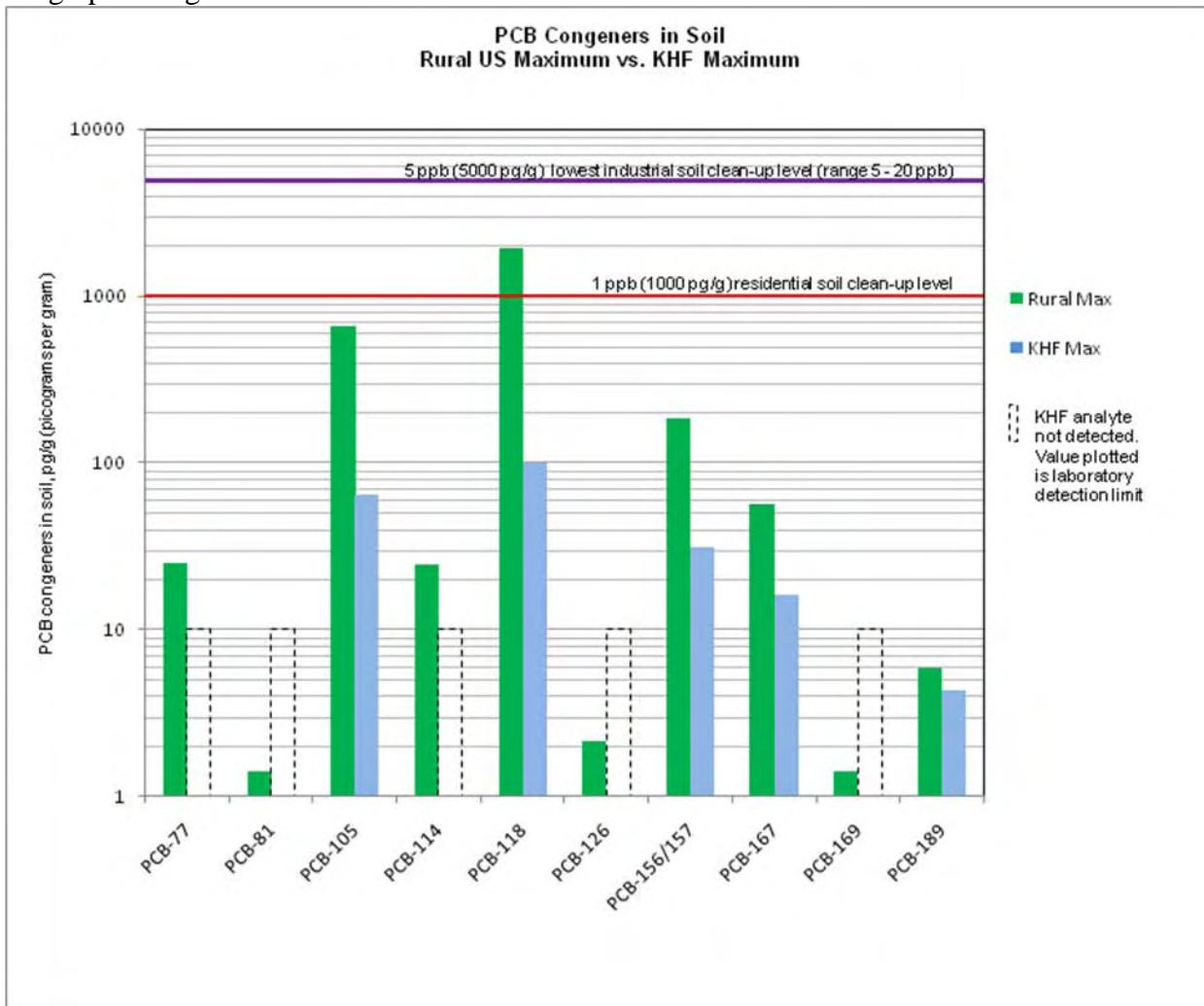


Figure 6. Graph of KHF PCB Congeners Compared to Rural U.S. Soils. KHF data supplied by Chemical Waste Management, Kettleman Hills Facility. Samples collected 3/31 - 4/1/09 and analyzed by TestAmerica Laboratory, Sacramento. Rural US data set included in “*Pilot Survey of Levels of Polychlorinated Dibenzo-p-dioxins, Polychlorinated Dibenzofurans, Polychlorinated Biphenyls, and Mercury in Rural Soils of the United States,*” document number EPA/600/R-05/048F

The data in the 2007 rural soils report represents soil samples collected from 27 locations

throughout the United States. The rural locations were specifically selected to avoid hazardous waste sites and other known sources of PCB contamination. The study authors indicate that the results of the study pertain to the 27 sites sampled and should not be more broadly interpreted as statistically representative of all rural soils in the United States. These results, however, may be a plausible basis for a preliminary characterization of soils in rural/remote areas.

The KHF data set (Section 6.0) is generally consistent with PCB congener concentrations reported for rural areas. The narrative evaluation of the Kettleman data set relative to the rural U.S. data set (see below) is presented qualitatively rather than quantitatively, as there is insufficient data to perform robust statistical analyses.

Congener 77 was not reported in the Kettleman samples above the laboratory detection limit of 10 pg/g. Rural U.S. soil concentrations ranged up to 25 pg/g.

Congener 81 was not reported in the Kettleman samples above the laboratory detection limit of 10 pg/g. Congener 81 was rarely detected in the U.S. rural soils.

Congener 105 was reported in the Kettleman samples at a maximum concentration of 65 pg/g, which is below the rural U.S. maximum concentration of 657 pg/g.

Congener 114 was not reported in the Kettleman samples above the laboratory detection limit of 10 pg/g. Rural U.S. soil concentrations ranged up to 24 pg/g.

Congener 118 was reported in the Kettleman samples at a maximum concentration of 100 pg/g, which is below the rural U.S. maximum concentration of 1917 pg/g.

Congener 123 is not included in the graph (Figure 6) because it co-elutes (i.e., looks the same on the analytical instrument) with congeners 106 and 107 and was not recorded in the 2007 rural data set as a separate congener.

Congener 126 was not reported in the Kettleman samples above the laboratory detection limit of 10 pg/g. Rural U.S. soil concentrations ranged up to 2 pg/g.

Congener 156/157 was reported in the Kettleman samples at a maximum concentration of 31 pg/g, which is below the rural U.S. maximum concentration of 185 pg/g.

Congener 167 was reported in the Kettleman samples at a maximum concentration of 16 pg/g, which is below the rural U.S. maximum concentration of 57 pg/g.

Congener 169 was not reported in the Kettleman samples above the laboratory detection limit of 10 pg/g. Rural U.S. soil concentrations were less than 2 pg/g.

Congener 189 was reported in the Kettleman samples at a maximum concentration of 4.3 pg/g, which is below the rural U.S. maximum concentration of 6 pg/g.

7.0 QUALITY CONTROL RESULTS

Laboratory analytical data should be viewed within the context of quality control samples. Quality Control (QC) samples are used to measure and control quality and are one part of a laboratory's QA/QC (Quality Assurance / Quality Control) program. Quality assurance generally refers to the overall strategy for obtaining a quality product, while quality control activities are the tactics that are used to measure quality. Available quality control samples for EPA's data set include the following:

- method blank sample
- surrogate results
- field duplicate sample
- matrix spike/duplicate sample
- laboratory control samples (LCS)

The EPA laboratory report is included in Attachment 1.

7.1 Method Blank

A method blank is a contaminant-free laboratory sample of the same matrix (e.g., soil) as the environmental samples. The method blank is prepared and processed in the lab in exactly the same manner as an equivalent environmental sample. The method blank is used to document contamination resulting from the analytical process. EPA's method blank results for the Kettleman project indicated contamination with congeners 77, 81, 105, 118, 156/157, 167, 169, and 189. The EPA laboratory report (Attachment 1) flags significant blank contamination with a "B" qualifier. The "B" qualifier is attached to any analytical result that is less than ten times the concentration found in the associated method blank. For example, detections of congener 77 at concentrations less than 84.8 pg/g are flagged with a "B" qualifier due to the method blank contamination reported at 8.48 pg/g. Analytical results less than ten times the associated blank contamination are analytically uncertain, and may be the result of artificial contamination within the analytical process rather than actual environmental contamination.

The method blank results for the relevant congeners (EPA data set) are shown in Table 3.

Table 3. Method Blank Results

Congener Number	Congener Name / Chemical Abstract Service Number	Method Blank Result (pg/g)
77	3,3',4,4'-Tetrachlorobiphenyl (CAS 32598-13-3)	8.48
81	3,4,4',5-Tetrachlorobiphenyl (CAS 70362-50-4)	1.86
105	2,3,3',4,4'-Pentachlorobiphenyl (CAS 32598-14-4)	86
118	2,3',4,4',5-Pentachlorobiphenyl (CAS 31508-00-6)	10.6
156 / 157	(CAS 38380-08-4) / (CAS 69782-90-7)	5.16
167	2,3',4,4',5,5'-Hexachlorobiphenyl (CAS 52663-72-6)	2.2
169	3,3',4,4',5,5'-Hexachlorobiphenyl (CAS 32774-16-6)	1.99
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl (CAS 39635-31-9)	2.49

7.2 Surrogate

A surrogate is a chemical which is similar to the target analyte in chemical composition and analytical behavior, but which is not expected to be present in the sample. Surrogates are added to all the environmental samples, blanks, and QC samples in the analytical batch during sample preparation. Surrogate results are used to monitor the performance of the analytical process. Surrogate recoveries are ideally 100%, but the allowable recovery range varies by laboratory and surrogate. Allowable recoveries reported in the EPA laboratory report (Attachment 1) ranged from 15 – 150% to 30 – 135%. Generally acceptable surrogate recoveries were reported for the B-18, B-99 (field duplicate of B-18), Northeast, and North samples. Unacceptable (low) surrogate recoveries were reported for the Northwest, Southwest, and South samples. The low surrogate recoveries may indicate a low bias (i.e., analytical results are lower than what is present in the environment) in the Northwest, Southwest, and South samples.

7.3 Field Duplicate

A field duplicate sample is a separate and independent sample collected in the field (e.g., at KHF) at the same time as the original sample. The field duplicate sample is submitted as a “blind” sample, which means it is not identified to laboratory personnel as a duplicate sample. For the KHF project, EPA’s field duplicate sample (labeled B-99) was collected at B-18, and was a duplicate of the composite (homogenized) B-18 sample. Field duplicates are useful in documenting the precision of the sampling and analysis process.

Field duplicates are evaluated by calculating the Relative Percent Difference (RPD) between the primary and duplicate samples. Relative Percent Difference (RPD) is the difference between the samples divided by the mean of the samples:

$$\text{Example (Congener 167): } \frac{57 - 44.8}{50.9} = \frac{12.2}{50.9} \times 100 = 24\%$$

RPDs are not calculated if one (or both) of the samples in a duplicate pair is non-detect for a given analyte. The RPD goal is 30%, provided the values are higher than the laboratory quantitation limit. Split sample RPDs may exceed 30% for a variety of technical reasons, including sample heterogeneity, inadequate mixing of the composite sample, other field error, laboratory error, and the inherent variability in analytical results close to the laboratory quantitation limit.

Field duplicate results (EPA data set) are shown in Table 4.

Table 4. Field Duplicate Results

Congener Number	B-18 (pg/g)	B-99 (field duplicate) (pg/g)	Relative Percent Difference (%)
77	68.9	32	73
81	5.27	4.68	12
105	340	97.3	111
114	11.4	9.5	18
118	321	213	40

123	8.59	6.67	25
126	12.4	12.6	2
156 / 157	122	100	20
167	57	44.8	24
169	7.84	10.3	27
189	30	29.5	2

Eight of the eleven paired results met the project RPD goal of 30%, with RPDs ranging from 2 to 27%. Three congeners (77, 105, and 118) exceeded the RPD goal of 30%. Although above the 30% RPD goal, the data provides a qualitative indication of sample variability.

7.4 Matrix Spike / Matrix Spike Duplicate (MS/MSD)

A matrix spike is an environmental sample that is used for QC purposes. A known concentration of the target analyte is added to the sample (spiked), which is then carried through the analytical process. The matrix spike is used to assess the bias of a method in a given sample matrix. For the KHF samples analyzed by the EPA Region 3 laboratory, some of the matrix spike compounds were outside (generally above) the acceptable limit. The acceptable MS/MSD recovery limits are 50 – 150%. Many of the MS results were above the slightly above the upper limit of the acceptance range, with recovery values from 150 to 177%. The slight high bias in the MS/MSD results may indicate a slight high bias (i.e., laboratory analytical results are higher than what is present in the environment) in the associated samples.

7.5 Laboratory Control Sample (LCS)

A laboratory control sample (LCS), which is sometimes called a “blank spike” is an analyte-free sample which has been spiked with known concentrations of the target analytes. The spiked sample is then carried through the sample preparation and analytical process. The acceptable recovery for the LCS sample is 50 – 150%. For the Kettleman project, most of the LCS analyte recoveries recorded by the EPA lab were above the upper limit of the acceptance range, with recovery values from 157 – 224% for most of the WHO congeners and 893% recovery for congener 105. The high bias in the LCS results may indicate a slight high bias (i.e., laboratory analytical results are higher than what is present in the environment) for most of the WHO congeners, and a substantial high bias for congener 105.

8.0 CONCLUSIONS

The purpose of this split sampling effort was to assess polychlorinated biphenyl (PCB) congeners in soil near the Chemical Waste Management Kettleman Hills Facility. Composite soil samples were collected at the facility fenceline and downwind of the B-18 landfill on March 31st and April 1st, 2009. The EPA samples were analyzed at EPA’s Region 3 laboratory in Fort Meade, Maryland. The CWM-KHF samples were analyzed at TestAmerica in West Sacramento, California. The following key points summarize the results of this study.

- Results of the split sampling effort indicate generally low concentrations (part per trillion range) of PCB congeners in soil.

- PCB congeners in soil at the perimeter of the Kettleman Hills Facility are generally consistent with PCB congeners in rural soil nationwide.
- PCB congeners in soil at the perimeter of the Kettleman Hills Facility are nearly all below EPA's Regional Screening Levels for residential and industrial sites.
- PCB congeners in soil at the perimeter of the Kettleman Hills Facility are below EPA's soil clean-up goals for residential and industrial sites.
- The EPA laboratory generally reported higher concentrations of PCB congeners than Chemical Waste Management's laboratory (TestAmerica). Some of the EPA data were outside of quality control specifications, generally resulting in a high bias (i.e., laboratory analytical results are higher than what is present in the environment) in the EPA data set. The net effect of the high bias is that the data are conservative (i.e., health protective).
- The Chemical Waste Management Kettleman Hills Facility Risk Assessment will provide a more definitive analysis of potential risk to human health or ecological receptors.

ATTACHMENT 1

LABORATORY ANALYTICAL REPORTS

U.S. Environmental Protection Agency
Region 3 Laboratory, Fort Meade, Maryland

TestAmerica Laboratories, Inc.
West Sacramento, California

Note: Attachment 1 includes the laboratory summary data reports. The complete laboratory reports, including raw data, are several hundred pages long. The complete laboratory reports are available upon request.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Final Analytical Report

Site Name.....	Kettleman Hills Waste Management Facility
Sample Collection Date(s).....	03/31/09 12:32- 04/01/09 11:26
Contact.....	Kathy Baylor
Report Date.....	05/21/09 09:37
Project #.....	NSF 470
Work Orders.....	0904005

Analyses included in this report:

PCB Congeners

Percent Dry Weight (105C)

Approved for Release

0904005 FINAL NSF 470 05 21 09 937
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OASQA Representative



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Report Narrative

This work order supports the request NSF 470 submitted by EPA Region 9.

The matrix spike (BI71205-MS1) sample did not acquire for the first two functions of the run. The instrument has had software problems since running these samples and the re-run of the MS could not be completed. The compounds affected by the two functions have the code "C" indicated.

Prior to extraction, a new matrix spike solution was made (0900190) because spiking solution 0700561 was starting to show signs of concentration by evaporation of solvent. Solution 0900190 was made from the same stock solution. The recovery results indicate that this stock solution also has concentrated due to evaporation of solvent. Recoveries were high for the Blank Spike, Matrix Spike and Matrix Spike duplicate. Results were not qualified due to the spike recoveries.



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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Matrix	Date Sampled	Date Received
Southwest	0904005-01	Solid	3/31/2009 12:33	4/2/2009 11:37
South	0904005-02	Solid	3/31/2009 18:10	4/2/2009 11:37
B-18	0904005-03	Solid	4/1/2009 11:26	4/2/2009 11:37
B-99	0904005-04	Solid	4/1/2009 11:26	4/2/2009 11:37
Northeast	0904005-05	Solid	3/31/2009 12:32	4/2/2009 11:37
North	0904005-06	Solid	3/31/2009 18:01	4/2/2009 11:37
Northwest	0904005-07	Solid	4/1/2009 11:06	4/2/2009 11:37



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Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 9
75 Hawthorne Street
San Francisco, California 94105

PROJ. NO.	PROJECT NAME				NO. OF CONTAINERS	REMARKS
CWM kettleman PCB splits				1		
SAMPLERS: (Signature) John Beach Mathew Plate				2	PCB sample 1669	Page 1 of 2
DATE	TIME	MATRIX	COMP.	GIFAE	SAMPLE IDENTIFICATION	
3/31/9	1233	Soil	X		Southwest	1 X 0904005-01
3/31/9	1810	soil	X		South	1 X -02
4/1/9	1126	soil	X		B-18	1 X -03
4/1/9	1126	soil	X		B-99	1 X -04
Relinquished by: (Signature)	Date / Time	Received by: (Signature)		Relinquished by: (Signature)	Date / Time	Received by: (Signature)
<i>John Beach</i>	4/1/9 4:30	FedEx 8664 1278	6:30			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)		Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	4/26/9 1137	<i>Mathew Plate</i>				
Received for Laboratory by: (Signature)	Date / Time	Temp.	Seals intact (Y/N)	Condition / Remarks	<i>Temp Blank 1.3°C</i>	

Distribution: Original accompanies Shipment; Copy to Coordinator Field Files

9- 00479



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 9
75 Hawthorne Street
San Francisco, California 94108

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

9- 00803

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Southwest

Lab ID: 0904005-01

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets

Batch:	BI71205	Sample Weight:	%Solids: 97.30	Sample Wet Weight: 5.63g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1	2-Monochlorobiphenyl	2.96	J	3.65	1	04/15/09 15:45
2	3-Monochlorobiphenyl	4.86		3.65	1	04/15/09 15:45
3	4-Monochlorobiphenyl	8.36		3.65	1	04/15/09 15:45
4	2,2'-Dichlorobiphenyl	15.7		3.65	1	04/15/09 15:45
5	2,3-Dichlorobiphenyl	19.3	EMPC	3.65	1	04/15/09 15:45
6	2,3'-Dichlorobiphenyl	118	EMPC	3.65	1	04/15/09 15:45
7	2,4-Dichlorobiphenyl	U		3.65	1	04/15/09 15:45
8	2,4'-Dichlorobiphenyl	187		3.65	1	04/15/09 15:45
9	2,5-Dichlorobiphenyl	U		3.65	1	04/15/09 15:45
10	2,6-Dichlorobiphenyl	U		3.65	1	04/15/09 15:45
11	3,3'-Dichlorobiphenyl	119	B	3.65	1	04/15/09 15:45
12/13	3,4-DiCB/3,4'-DiCB	522		3.65	1	04/15/09 15:45
14	3,5-Dichlorobiphenyl	12.8		3.65	1	04/15/09 15:45
15	4,4'-Dichlorobiphenyl	405		3.65	1	04/15/09 15:45
16/24	2,2',3-TrCB/2,3,6-TrCB	354		3.65	1	04/15/09 15:45
17	2,2',4-Trichlorobiphenyl	79.6		3.65	1	04/15/09 15:45
18/30	2,2',5-TrCB/2,4,6-TrCB	369		3.65	1	04/15/09 15:45
19	2,2',6-Trichlorobiphenyl	18.4		3.65	1	04/15/09 15:45
20/28	2,3,3'-TrCB/2,4,4'-TrCB	697		3.65	1	04/15/09 15:45
21/33	2,3,4-TrCB/2,3',4'-TrCB	1200		3.65	1	04/15/09 15:45
22	2,3,4'-Trichlorobiphenyl	577		3.65	1	04/15/09 15:45
23	2,3,5-Trichlorobiphenyl	22.6		3.65	1	04/15/09 15:45
25	2,3',4-Trichlorobiphenyl	116		3.65	1	04/15/09 15:45
26/29	2,3',5-TrCB/2,4,5-TrCB	420		3.65	1	04/15/09 15:45
27	2,3',6-Trichlorobiphenyl	31.3		3.65	1	04/15/09 15:45
31	2,4',5-Trichlorobiphenyl	1680	B	3.65	1	04/15/09 15:45
32	2,4',6-Trichlorobiphenyl	98.9		3.65	1	04/15/09 15:45
34	2,3',5'-Trichlorobiphenyl	36.9		3.65	1	04/15/09 15:45
35	3,3',4-Trichlorobiphenyl	273		3.65	1	04/15/09 15:45
36	3,3',5-Trichlorobiphenyl	34.3		3.65	1	04/15/09 15:45
37	3,4,4'-Trichlorobiphenyl	664		3.65	1	04/15/09 15:45
38	3,4,5-Trichlorobiphenyl	434	EMPC	3.65	1	04/15/09 15:45
39	3,4',5-Trichlorobiphenyl	44.9	B	3.65	1	04/15/09 15:45
40/41/71	2,2',3,3'-TeCB/2,2',3,4-TeCB/2,3',4',6-TeCB	511		3.65	1	04/15/09 15:45
42	2,2',3,4'-Tetrachlorobiphenyl	238		3.65	1	04/15/09 15:45
43/73	2,2',3,5-TeCB/2,3',5',6-TeCB	93.8		3.65	1	04/15/09 15:45
44/47/65	2,2',3,5'-TeCB/2,2',4,4'-TeCB/2,3,5,6-TeCB	606		3.65	1	04/15/09 15:45
45/51	2,2',3,6-TeCB/2,2',4,6'-TeCB	149		3.65	1	04/15/09 15:45
46	2,2',3,6'-Tetrachlorobiphenyl	72.3		3.65	1	04/15/09 15:45

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Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Southwest

Lab ID: 0904005-01

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.30	Sample Wet Weight: 5.63g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
48	2,2',4,5-Tetrachlorobiphenyl		142		3.65	1	04/15/09 15:45
49/69	2,2',4,5'-TeCB/2,3',4,6-TeCB		262		3.65	1	04/15/09 15:45
50/53	2,2',4,6-TeCB/2,2',5,6'-TeCB		82.9		3.65	1	04/15/09 15:45
52	2,2',5,5'-Tetrachlorobiphenyl		416		3.65	1	04/15/09 15:45
54	2,2',6,6'-Tetrachlorobiphenyl		10.4		3.65	1	04/15/09 15:45
55	2,3,3',4-Tetrachlorobiphenyl		U		3.65	1	04/15/09 15:45
56	2,3,3',4'-Tetrachlorobiphenyl		1140		3.65	1	04/15/09 15:45
57	2,3,3',5-Tetrachlorobiphenyl		31.5		3.65	1	04/15/09 15:45
58	2,3,3',5'-Tetrachlorobiphenyl		43.4		3.65	1	04/15/09 15:45
59/62/75	2,3,3',6-TeCB/2,3,4,6-TeCB/2,4,4',6-TeCB		78.1		3.65	1	04/15/09 15:45
60	2,3,4,4'-Tetrachlorobiphenyl		107		3.65	1	04/15/09 15:45
61/70/74/76	TeCB-61/70/74/76		1420		3.65	1	04/15/09 15:45
63	2,3,4',5-Tetrachlorobiphenyl		58.8		3.65	1	04/15/09 15:45
64	2,3,4',6-Tetrachlorobiphenyl		162		3.65	1	04/15/09 15:45
66	2,3',4,4'-Tetrachlorobiphenyl		613		3.65	1	04/15/09 15:45
67	2,3',4,5-Tetrachlorobiphenyl		72.3		3.65	1	04/15/09 15:45
68	2,3',4,5'-Tetrachlorobiphenyl		34.6		3.65	1	04/15/09 15:45
72	2,3',5,5'-Tetrachlorobiphenyl		59.5		3.65	1	04/15/09 15:45
77	3,3',4,4'-Tetrachlorobiphenyl		420		3.65	1	04/15/09 15:45
78	3,3',4,5-Tetrachlorobiphenyl		10.0		3.65	1	04/15/09 15:45
79	3,3',4,5'-Tetrachlorobiphenyl		67.9		3.65	1	04/15/09 15:45
80	3,3',5,5'-Tetrachlorobiphenyl		11.8	EMPC	3.65	1	04/15/09 15:45
81	3,4,4',5-Tetrachlorobiphenyl		12.3	B	3.65	1	04/15/09 15:45
82	2,2',3,3',4-Pentachlorobiphenyl		225		3.65	1	04/15/09 15:45
83/99/112	2,2',3,3',5-PeCB/2,2',4,4',5-PeCB/2,3,3',5,6-PeCB		427		3.65	1	04/15/09 15:45
84	2,2',3,3',6-Pentachlorobiphenyl		309		3.65	1	04/15/09 15:45
85/116/117	2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB		132		3.65	1	04/15/09 15:45
86/87/97/109/119/120/125	PeCB-86/87/97/109/119/125		643		3.65	1	04/15/09 15:45
88/91	2,2',3,4,6-PeCB/2,2',3,4',6-PeCB		188		3.65	1	04/15/09 15:45
89	2,2',3,4,6'-Pentachlorobiphenyl		48.6		3.65	1	04/15/09 15:45
90/101/113	2,2',3,4',5-PeCB/2,2',4,5,5'-PeCB/2,3,3',5',6-PeCB		584		3.65	1	04/15/09 15:45
92	2,2',3,5,5'-Pentachlorobiphenyl		218		3.65	1	04/15/09 15:45
93/100	2,2',3,5,6-PeCB/2,2',4,4',6-PeCB		21.5		3.65	1	04/15/09 15:45
94	2,2',3,5,6'-Pentachlorobiphenyl		54.0		3.65	1	04/15/09 15:45
95	2,2',3,5',6-Pentachlorobiphenyl		383		3.65	1	04/15/09 15:45
96	2,2',3,6,6'-Pentachlorobiphenyl		105		3.65	1	04/15/09 15:45
98/102	2,2',3,4',6'-PeCB/2,2',4,5,6'-PeCB		76.7		3.65	1	04/15/09 15:45
103	2,2',4,5',6-Pentachlorobiphenyl		7.19		3.65	1	04/15/09 15:45
104	2,2',4,6,6'-Pentachlorobiphenyl		U		3.65	1	04/15/09 15:45

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Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Southwest

Lab ID: 0904005-01

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.30	Sample Wet Weight: 5.63g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
105	2,3,3',4,4'-Pentachlorobiphenyl		3130	EMPC	3.65	1	04/15/09 15:45
106	2,3,3',4,5-Pentachlorobiphenyl		U		3.65	1	04/15/09 15:45
107	2,3,3',4',5-Pentachlorobiphenyl		197		3.65	1	04/15/09 15:45
108/124	2,3,3',4,5'-PeCB/2,3',4',5,5'-PeCB		79.2		3.65	1	04/15/09 15:45
110/115	2,3,3',4',6-PeCB/2,3,4,4',6-PeCB		573		3.65	1	04/15/09 15:45
111	2,3,3',5,5'-Pentachlorobiphenyl		6.86		3.65	1	04/15/09 15:45
114	2,3,4,4',5-Pentachlorobiphenyl		13.6		3.65	1	04/15/09 15:45
118	2,3',4,4',5-Pentachlorobiphenyl		489		3.65	1	04/15/09 15:45
120	2,3',4,5,5'-Pentachlorobiphenyl		18.3		3.65	1	04/15/09 15:45
121	2,3',4,5',6-Pentachlorobiphenyl		U		3.65	1	04/15/09 15:45
122	2,3,3',4',5'-Pentachlorobiphenyl		244	EMPC	3.65	1	04/15/09 15:45
123	2,3',4,4',5'-Pentachlorobiphenyl		37.6		3.65	1	04/15/09 15:45
126	3,3',4,4',5-Pentachlorobiphenyl		36.9		3.65	1	04/15/09 15:45
127	3,3',4,5,5'-Pentachlorobiphenyl		U		3.65	1	04/15/09 15:45
128/166	2,2',3,3',4,4'-HxCB/2,3,4,4',5,6-HxCB		96.4		3.65	1	04/15/09 15:45
129/138/163	HxCB-129/138/163		438		3.65	1	04/15/09 15:45
130	2,2',3,3',4,5'-Hexachlorobiphenyl		86.9		3.65	1	04/15/09 15:45
131	2,2',3,3',4,6-Hexachlorobiphenyl		13.3		3.65	1	04/15/09 15:45
132	2,2',3,3',4,6'-Hexachlorobiphenyl		217		3.65	1	04/15/09 15:45
133	2,2',3,3',5,5'-Hexachlorobiphenyl		16.6		3.65	1	04/15/09 15:45
134/143	2,2',3,3',5,6-HxCB/2,2',3,4,5,6'-HxCB		58.8		3.65	1	04/15/09 15:45
135/151	2,2',3,3',5,6'-HxCB/2,2',3,5,5',6-HxCB		208		3.65	1	04/15/09 15:45
136	2,2',3,3',6,6'-Hexachlorobiphenyl		198		3.65	1	04/15/09 15:45
137	2,2',3,4,4',5-Hexachlorobiphenyl		34.5		3.65	1	04/15/09 15:45
139/140	2,2',3,4,4',6-HxCB/2,2',3,4,4',6'-HxCB		8.87		3.65	1	04/15/09 15:45
141	2,2',3,4,5,5'-Hexachlorobiphenyl		58.4		3.65	1	04/15/09 15:45
142	2,2',3,4,5,6-Hexachlorobiphenyl		U		3.65	1	04/15/09 15:45
144	2,2',3,4,5',6-Hexachlorobiphenyl		14.9		3.65	1	04/15/09 15:45
145	2,2',3,4,6,6'-Hexachlorobiphenyl		2.94	J	3.65	1	04/15/09 15:45
146	2,2',3,4',5,5'-Hexachlorobiphenyl		146		3.65	1	04/15/09 15:45
147/149	2,2',3,4',5,6-HxCB/2,2',3,4',5',6-HxCB		369		3.65	1	04/15/09 15:45
148	2,2',3,4',5,6'-Hexachlorobiphenyl		5.84		3.65	1	04/15/09 15:45
150	2,2',3,4',6,6'-Hexachlorobiphenyl		11.5		3.65	1	04/15/09 15:45
152	2,2',3,5,6,6'-Hexachlorobiphenyl		15.6		3.65	1	04/15/09 15:45
153/168	2,2',4,4',5,5'-HxCB/2,3',4,4',5',6-HxCB		257		3.65	1	04/15/09 15:45
154	2,2',4,4',5,6'-Hexachlorobiphenyl		7.45		3.65	1	04/15/09 15:45
155	2,2',4,4',6,6'-Hexachlorobiphenyl		10.6	EMPC	3.65	1	04/15/09 15:45
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5'-HxCB		107		3.65	1	04/15/09 15:45



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Southwest

Lab ID: 0904005-01

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.30	Sample Wet Weight: 5.63g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
158	2,3,3',4,4',6-Hexachlorobiphenyl		36.5		3.65	1	04/15/09 15:45
159	2,3,3',4,5,5'-Hexachlorobiphenyl		5.62		3.65	1	04/15/09 15:45
160	2,3,3',4,5,6-Hexachlorobiphenyl		U		3.65	1	04/15/09 15:45
161	2,3,3',4,5',6-Hexachlorobiphenyl		U		3.65	1	04/15/09 15:45
162	2,3,3',4',5,5'-Hexachlorobiphenyl		865	EMPC	3.65	1	04/15/09 15:45
164	2,3,3',4',5',6-Hexachlorobiphenyl		73.4		3.65	1	04/15/09 15:45
165	2,3,3',5,5',6-Hexachlorobiphenyl		2.88	J	3.65	1	04/15/09 15:45
167	2,3',4,4',5,5'-Hexachlorobiphenyl		51.8		3.65	1	04/15/09 15:45
169	3,3',4,4',5,5'-Hexachlorobiphenyl		U		3.65	1	04/15/09 15:45
170	2,2',3,3',4,4',5-Heptachlorobiphenyl		497	EMPC	3.65	1	04/15/09 15:45
171/173	2,2',3,3',4,4',6-HpCB/2,2',3,3',4,5,6-HpCB		33.0		3.65	1	04/15/09 15:45
172	2,2',3,3',4,5,5'-Heptachlorobiphenyl		26.4		3.65	1	04/15/09 15:45
174	2,2',3,3',4,5,6'-Heptachlorobiphenyl		169		3.65	1	04/15/09 15:45
175	2,2',3,3',4,5',6-Heptachlorobiphenyl		17.1		3.65	1	04/15/09 15:45
176	2,2',3,3',4,6,6'-Heptachlorobiphenyl		39.8		3.65	1	04/15/09 15:45
177	2,2',3,3',4,5',6'-Heptachlorobiphenyl		75.6		3.65	1	04/15/09 15:45
178	2,2',3,3',5,5',6-Heptachlorobiphenyl		25.6		3.65	1	04/15/09 15:45
179	2,2',3,3',5,6,6'-Heptachlorobiphenyl		127		3.65	1	04/15/09 15:45
180/193	2,2',3,4,4',5,5'-HpCB/2,3,3',4',5,5',6-HpCB		183		3.65	1	04/15/09 15:45
181	2,2',3,4,4',5,6-Heptachlorobiphenyl		U		3.65	1	04/15/09 15:45
182	2,2',3,4,4',5,6'-Heptachlorobiphenyl		U		3.65	1	04/15/09 15:45
183/185	2,2',3,4,4',5',6-HpCB/2,2',3,4,5,5',6-HpCB		45.3		3.65	1	04/15/09 15:45
184	2,2',3,4,4',6,6'-Heptachlorobiphenyl		6.50		3.65	1	04/15/09 15:45
186	2,2',3,4,5,6,6'-Heptachlorobiphenyl		U		3.65	1	04/15/09 15:45
187	2,2',3,4',5,5',6-Heptachlorobiphenyl		139		3.65	1	04/15/09 15:45
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl		7.01		3.65	1	04/15/09 15:45
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl		27.1	EMPC	3.65	1	04/15/09 15:45
190	2,3,3',4,4',5,6-Heptachlorobiphenyl		24.0		3.65	1	04/15/09 15:45
191	2,3,3',4,4',5'-Heptachlorobiphenyl		9.31		3.65	1	04/15/09 15:45
192	2,3,3',4,5,5'-Heptachlorobiphenyl		U		3.65	1	04/15/09 15:45
194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl		44.9		3.65	1	04/15/09 15:45
195	2,2',3,3',4,4',5,6-Octachlorobiphenyl		14.4		3.65	1	04/15/09 15:45
196	2,2',3,3',4,4',5,6'-Octachlorobiphenyl		39.1		3.65	1	04/15/09 15:45
197/200	2,2',3,3',4,4',6,6'-OcCB/2,2',3,3',4,5,6,6'-OcCB		29.1		3.65	1	04/15/09 15:45
198/199	2,2',3,3',4,5,5',6-OcCB/2,2',3,3',4,5,5',6'-OcCB		51.1		3.65	1	04/15/09 15:45
201	2,2',3,3',4,5,6,6'-Octachlorobiphenyl		22.0		3.65	1	04/15/09 15:45
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl		18.0		3.65	1	04/15/09 15:45
203	2,2',3,4,4',5,5',6-Octachlorobiphenyl		23.7		3.65	1	04/15/09 15:45



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Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Southwest

Lab ID: 0904005-01

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.30	Sample Wet Weight: 5.63g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
204	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	U		3.65	1	04/15/09 15:45
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	U		3.65	1	04/15/09 15:45
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	16.9	B	3.65	1	04/15/09 15:45
207	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	11.0		3.65	1	04/15/09 15:45
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	9.82		3.65	1	04/15/09 15:45
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	13.2		3.65	1	04/15/09 15:45
1-3	Total Monochlorobiphenyl	16.2		3.65	1	04/15/09 15:45
4-15	Total Dichlorobiphenyl	1440	B	3.65	1	04/15/09 15:45
16-39	Total Trichlorobiphenyl	7150		3.65	1	04/15/09 15:45
40-81	Total Tetrachlorobiphenyl	6830		3.65	1	04/15/09 15:45
82-127	Total Pentachlorobiphenyl	8250		3.65	1	04/15/09 15:45
128-169	Total Hexachlorobiphenyl	3360		3.65	1	04/15/09 15:45
170-193	Total Heptachlorobiphenyl	1450		3.65	1	04/15/09 15:45
194-205	Total Octachlorobiphenyl	242		3.65	1	04/15/09 15:45
206-208	Total Nonachlorobiphenyl	37.6	B	3.65	1	04/15/09 15:45
209	Decachlorobiphenyl	13.2	B	3.65	1	04/15/09 15:45

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1L	<i>Surrogate: 13C12-2-Monochlorobiphenyl</i>	7.00	A	7 %	15-150	04/15/09 15:45
3L	<i>Surrogate: 13C12-4-Monochlorobiphenyl</i>	8.23	A	8 %	15-150	04/15/09 15:45
4L	<i>Surrogate: 13C12-2,2'-Dichlorobiphenyl</i>	8.54	A	9 %	25-150	04/15/09 15:45
15L	<i>Surrogate: 13C12-4,4'-Dichlorobiphenyl</i>	13.7	A	14 %	25-150	04/15/09 15:45
19L	<i>Surrogate: 13C12-2,2',6-Trichlorobiphenyl</i>	12.0	A	12 %	25-150	04/15/09 15:45
37L	<i>Surrogate: 13C12-3,4,4'-Trichlorobiphenyl</i>	16.2	A	16 %	25-150	04/15/09 15:45
54L	<i>Surrogate: 13C12-2,2',6,6'-Tetrachlorobiphenyl</i>	10.3	A	10 %	25-150	04/15/09 15:45
77L	<i>Surrogate: 13C12-3,3',4,4'-Tetrachlorobiphenyl</i>	17.9	A	18 %	25-150	04/15/09 15:45
81L	<i>Surrogate: 13C12-3,4,4',5-Tetrachlorobiphenyl</i>	16.7	A	17 %	25-150	04/15/09 15:45
104L	<i>Surrogate: 13C12-2,2',4,6,6'-Pentachlorobiphenyl</i>	12.5	A	12 %	25-150	04/15/09 15:45
105L	<i>Surrogate: 13C12-2,3,3',4,4'-Pentachlorobiphenyl</i>	16.9	A	17 %	25-150	04/15/09 15:45
114 L	<i>Surrogate: 13C12-2,3,4,4',5-Pentachlorobiphenyl</i>	15.2	A	15 %	25-150	04/15/09 15:45
118 L	<i>Surrogate: 13C12-2,3',4,4',5-Pentachlorobiphenyl</i>	16.3	A	16 %	25-150	04/15/09 15:45
123L	<i>Surrogate: 13C12-2',3,4,4',5-Pentachlorobiphenyl</i>	16.4	A	16 %	25-150	04/15/09 15:45



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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Southwest

Lab ID: 0904005-01

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
126L	Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl	19.4	A	19 %	25-150	04/15/09 15:45
155L	Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl	12.0	A	12 %	25-150	04/15/09 15:45
156L/157L	Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB	32.1	A	16 %	25-150	04/15/09 15:45
167L	Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl	16.0	A	16 %	25-150	04/15/09 15:45
169L	Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl	19.1	A	19 %	25-150	04/15/09 15:45
188L	Surrogate: 13C12-2,2',3,4',5,6,6'-Heptachlorobiphenyl	18.4	A	18 %	25-150	04/15/09 15:45
189L	Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl	17.9	A	18 %	25-150	04/15/09 15:45
202L	Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl	18.8	A	19 %	25-150	04/15/09 15:45
205L	Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl	13.9	A	14 %	25-150	04/15/09 15:45
206L	Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	14.0	A	14 %	25-150	04/15/09 15:45
208L	Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	12.9	A	13 %	25-150	04/15/09 15:45
209L	Surrogate: 13C12-Decachlorobiphenyl	13.4	A	13 %	25-150	04/15/09 15:45
28L	Surrogate: 13C12-2,4,4'-Trichlorobiphenyl	19.2	A	19 %	30-135	04/15/09 15:45
111 L	Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl	21.5	A	22 %	30-135	04/15/09 15:45
178L	Surrogate: 13C12-2,2',3,3',5,5',6-Heptachlorobiphenyl	22.7	A	23 %	30-135	04/15/09 15:45



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: South

Lab ID: 0904005-02

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets

Batch:	BI71205	Sample Weight:	%Solids: 97.30	Sample Wet Weight: 5.9g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1	2-Monochlorobiphenyl		7.28		3.48	1	04/15/09 16:47
2	3-Monochlorobiphenyl		4.88	EMPC	3.48	1	04/15/09 16:47
3	4-Monochlorobiphenyl		8.26		3.48	1	04/15/09 16:47
4	2,2'-Dichlorobiphenyl		13.2		3.48	1	04/15/09 16:47
5	2,3-Dichlorobiphenyl		U		3.48	1	04/15/09 16:47
6	2,3'-Dichlorobiphenyl		U		3.48	1	04/15/09 16:47
7	2,4-Dichlorobiphenyl		U		3.48	1	04/15/09 16:47
8	2,4'-Dichlorobiphenyl		U		3.48	1	04/15/09 16:47
9	2,5-Dichlorobiphenyl		8.43		3.48	1	04/15/09 16:47
10	2,6-Dichlorobiphenyl		U		3.48	1	04/15/09 16:47
11	3,3'-Dichlorobiphenyl		25.8	B	3.48	1	04/15/09 16:47
12/13	3,4-DiCB/3,4'-DiCB		32.8	B	3.48	1	04/15/09 16:47
14	3,5-Dichlorobiphenyl		U		3.48	1	04/15/09 16:47
15	4,4'-Dichlorobiphenyl		27.2	B	3.48	1	04/15/09 16:47
16/24	2,2',3-TrCB/2,3,6-TrCB		24.5	B	3.48	1	04/15/09 16:47
17	2,2',4-Trichlorobiphenyl		8.47	B	3.48	1	04/15/09 16:47
18/30	2,2',5-TrCB/2,4,6-TrCB		34.8	B	3.48	1	04/15/09 16:47
19	2,2',6-Trichlorobiphenyl		4.04		3.48	1	04/15/09 16:47
20/28	2,3,3'-TrCB/2,4,4'-TrCB		50.5	B	3.48	1	04/15/09 16:47
21/33	2,3,4-TrCB/2,3',4'-TrCB		50.5	B	3.48	1	04/15/09 16:47
22	2,3,4'-Trichlorobiphenyl		32.4	B	3.48	1	04/15/09 16:47
23	2,3,5-Trichlorobiphenyl		U		3.48	1	04/15/09 16:47
25	2,3',4-Trichlorobiphenyl		6.72	B	3.48	1	04/15/09 16:47
26/29	2,3',5-TrCB/2,4,5-TrCB		21.0	B	3.48	1	04/15/09 16:47
27	2,3',6-Trichlorobiphenyl		2.63	J	3.48	1	04/15/09 16:47
31	2,4',5-Trichlorobiphenyl		87.8	B	3.48	1	04/15/09 16:47
32	2,4',6-Trichlorobiphenyl		10.6	B	3.48	1	04/15/09 16:47
34	2,3',5'-Trichlorobiphenyl		U		3.48	1	04/15/09 16:47
35	3,3',4-Trichlorobiphenyl		9.75	B	3.48	1	04/15/09 16:47
36	3,3',5-Trichlorobiphenyl		U		3.48	1	04/15/09 16:47
37	3,4,4'-Trichlorobiphenyl		30.1	B	3.48	1	04/15/09 16:47
38	3,4,5-Trichlorobiphenyl		13.0	EMPC	3.48	1	04/15/09 16:47
39	3,4',5-Trichlorobiphenyl		U		3.48	1	04/15/09 16:47
40/41/71	2,2',3,3'-TeCB/2,2',3,4-TeCB/2,3',4',6-TeCB		31.4	B	3.48	1	04/15/09 16:47
42	2,2',3,4'-Tetrachlorobiphenyl		15.2	B	3.48	1	04/15/09 16:47
43/73	2,2',3,5-TeCB/2,3',5',6-TeCB		3.90	EMPC	3.48	1	04/15/09 16:47
44/47/65	2,2',3,5'-TeCB/2,2',4,4'-TeCB/2,3,5,6-TeCB		59.6	B	3.48	1	04/15/09 16:47
45/51	2,2',3,6-TeCB/2,2',4,6'-TeCB		12.0	B	3.48	1	04/15/09 16:47



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: South

Lab ID: 0904005-02

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.30	Sample Wet Weight: 5.9g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
46	2,2',3,6'-Tetrachlorobiphenyl		4.15		3.48	1	04/15/09 16:47
48	2,2',4,5-Tetrachlorobiphenyl		9.48		3.48	1	04/15/09 16:47
49/69	2,2',4,5'-TeCB/2,3',4,6-TeCB		31.3	B	3.48	1	04/15/09 16:47
50/53	2,2',4,6-TeCB/2,2',5,6'-TeCB		8.74		3.48	1	04/15/09 16:47
52	2,2',5,5'-Tetrachlorobiphenyl		51.9	B	3.48	1	04/15/09 16:47
54	2,2',6,6'-Tetrachlorobiphenyl		U		3.48	1	04/15/09 16:47
55	2,3,3',4-Tetrachlorobiphenyl		U		3.48	1	04/15/09 16:47
56	2,3,3',4'-Tetrachlorobiphenyl		54.0	B	3.48	1	04/15/09 16:47
57	2,3,3',5-Tetrachlorobiphenyl		U		3.48	1	04/15/09 16:47
58	2,3,3',5'-Tetrachlorobiphenyl		U		3.48	1	04/15/09 16:47
59/62/75	2,3,3',6-TeCB/2,3,4,6-TeCB/2,4,4',6-TeCB		5.82		3.48	1	04/15/09 16:47
60	2,3,4,4'-Tetrachlorobiphenyl		15.6	B	3.48	1	04/15/09 16:47
61/70/74/76	TeCB-61/70/74/76		115	B	3.48	1	04/15/09 16:47
63	2,3,4',5-Tetrachlorobiphenyl		3.31	J	3.48	1	04/15/09 16:47
64	2,3,4',6-Tetrachlorobiphenyl		22.9	B	3.48	1	04/15/09 16:47
66	2,3',4,4'-Tetrachlorobiphenyl		66.5	B	3.48	1	04/15/09 16:47
67	2,3',4,5-Tetrachlorobiphenyl		3.26	J	3.48	1	04/15/09 16:47
68	2,3',4,5'-Tetrachlorobiphenyl		2.20	J	3.48	1	04/15/09 16:47
72	2,3',5,5'-Tetrachlorobiphenyl		2.00	J	3.48	1	04/15/09 16:47
77	3,3',4,4'-Tetrachlorobiphenyl		27.8	B	3.48	1	04/15/09 16:47
78	3,3',4,5-Tetrachlorobiphenyl		U		3.48	1	04/15/09 16:47
79	3,3',4,5'-Tetrachlorobiphenyl		U		3.48	1	04/15/09 16:47
80	3,3',5,5'-Tetrachlorobiphenyl		U		3.48	1	04/15/09 16:47
81	3,4,4',5-Tetrachlorobiphenyl		10.4	B	3.48	1	04/15/09 16:47
82	2,2',3,3',4-Pentachlorobiphenyl		12.3	B	3.48	1	04/15/09 16:47
83/99/112	2,2',3,3',5-PeCB/2,2',4,4',5-PeCB/2,3,3',5,6-PeCB		38.3	B	3.48	1	04/15/09 16:47
84	2,2',3,3',6-Pentachlorobiphenyl		18.3		3.48	1	04/15/09 16:47
85/116/117	2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB		17.3	B	3.48	1	04/15/09 16:47
86/87/97/109/119/125	PeCB-86/87/97/109/119/125		56.1		3.48	1	04/15/09 16:47
88/91	2,2',3,4,6-PeCB/2,2',3,4',6-PeCB		11.2		3.48	1	04/15/09 16:47
89	2,2',3,4,6'-Pentachlorobiphenyl		U		3.48	1	04/15/09 16:47
90/101/113	2,2',3,4',5-PeCB/2,2',4,5,5'-PeCB/2,3,3',5',6-PeCB		78.0	B	3.48	1	04/15/09 16:47
92	2,2',3,5,5'-Pentachlorobiphenyl		15.0		3.48	1	04/15/09 16:47
93/100	2,2',3,5,6-PeCB/2,2',4,4',6-PeCB		U		3.48	1	04/15/09 16:47
94	2,2',3,5,6'-Pentachlorobiphenyl		U		3.48	1	04/15/09 16:47
95	2,2',3,5',6-Pentachlorobiphenyl		53.0	B	3.48	1	04/15/09 16:47
96	2,2',3,6,6'-Pentachlorobiphenyl		4.67		3.48	1	04/15/09 16:47
98/102	2,2',3,4',6'-PeCB/2,2',4,5,6'-PeCB		5.19		3.48	1	04/15/09 16:47



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: South

Lab ID: 0904005-02

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.30	Sample Wet Weight: 5.9g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
103	2,2',4,5',6-Pentachlorobiphenyl		U		3.48	1	04/15/09 16:47
104	2,2',4,6,6'-Pentachlorobiphenyl		U		3.48	1	04/15/09 16:47
105	2,3,3',4,4'-Pentachlorobiphenyl		126	EMPC, B	3.48	1	04/15/09 16:47
106	2,3,3',4,5-Pentachlorobiphenyl		U		3.48	1	04/15/09 16:47
107	2,3,3',4',5-Pentachlorobiphenyl		9.86		3.48	1	04/15/09 16:47
108/124	2,3,3',4,5'-PeCB/2,3',4',5,5'-PeCB		6.17		3.48	1	04/15/09 16:47
110/115	2,3,3',4',6-PeCB/2,3,4,4',6-PeCB		89.2	B	3.48	1	04/15/09 16:47
111	2,3,3',5,5'-Pentachlorobiphenyl		U		3.48	1	04/15/09 16:47
114	2,3,4,4',5-Pentachlorobiphenyl		13.8		3.48	1	04/15/09 16:47
118	2,3',4,4',5-Pentachlorobiphenyl		79.8	B	3.48	1	04/15/09 16:47
120	2,3',4,5,5'-Pentachlorobiphenyl		U		3.48	1	04/15/09 16:47
121	2,3',4,5',6-Pentachlorobiphenyl		U		3.48	1	04/15/09 16:47
122	2,3,3',4',5'-Pentachlorobiphenyl		7.28	EMPC	3.48	1	04/15/09 16:47
123	2,3',4,4',5'-Pentachlorobiphenyl		11.8		3.48	1	04/15/09 16:47
126	3,3',4,4',5-Pentachlorobiphenyl		22.6		3.48	1	04/15/09 16:47
127	3,3',4,5,5'-Pentachlorobiphenyl		U		3.48	1	04/15/09 16:47
128/166	2,2',3,3',4,4'-HxCB/2,3,4,4',5,6-HxCB		23.2	B	3.48	1	04/15/09 16:47
129/138/163	HxCB-129/138/163		183		3.48	1	04/15/09 16:47
130	2,2',3,3',4,5'-Hexachlorobiphenyl		9.23		3.48	1	04/15/09 16:47
131	2,2',3,3',4,6-Hexachlorobiphenyl		U		3.48	1	04/15/09 16:47
132	2,2',3,3',4,6'-Hexachlorobiphenyl		39.0	B	3.48	1	04/15/09 16:47
133	2,2',3,3',5,5'-Hexachlorobiphenyl		3.09	J	3.48	1	04/15/09 16:47
134/143	2,2',3,3',5,6-HxCB/2,2',3,4,5,6'-HxCB		7.35		3.48	1	04/15/09 16:47
135/151	2,2',3,3',5,6'-HxCB/2,2',3,5,5',6-HxCB		52.3		3.48	1	04/15/09 16:47
136	2,2',3,3',6,6'-Hexachlorobiphenyl		24.8	B	3.48	1	04/15/09 16:47
137	2,2',3,4,4',5-Hexachlorobiphenyl		5.12		3.48	1	04/15/09 16:47
139/140	2,2',3,4,4',6-HxCB/2,2',3,4,4',6-HxCB		U		3.48	1	04/15/09 16:47
141	2,2',3,4,5,5'-Hexachlorobiphenyl		35.9		3.48	1	04/15/09 16:47
142	2,2',3,4,5,6-Hexachlorobiphenyl		U		3.48	1	04/15/09 16:47
144	2,2',3,4,5',6-Hexachlorobiphenyl		6.65		3.48	1	04/15/09 16:47
145	2,2',3,4,6,6'-Hexachlorobiphenyl		U		3.48	1	04/15/09 16:47
146	2,2',3,4',5,5'-Hexachlorobiphenyl		29.5		3.48	1	04/15/09 16:47
147/149	2,2',3,4',5,6-HxCB/2,2',3,4',5,6-HxCB		123		3.48	1	04/15/09 16:47
148	2,2',3,4',5,6'-Hexachlorobiphenyl		U		3.48	1	04/15/09 16:47
150	2,2',3,4',6,6'-Hexachlorobiphenyl		U		3.48	1	04/15/09 16:47
152	2,2',3,5,6,6'-Hexachlorobiphenyl		U		3.48	1	04/15/09 16:47
153/168	2,2',4,4',5,5'-HxCB/2,3',4,4',5',6-HxCB		184		3.48	1	04/15/09 16:47
154	2,2',4,4',5,6'-Hexachlorobiphenyl		U		3.48	1	04/15/09 16:47



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: South

Lab ID: 0904005-02

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.30	Sample Wet Weight: 5.9g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
155	2,2',4,4',6,6'-Hexachlorobiphenyl		3.40	J	3.48	1	04/15/09 16:47
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5'-HxCB		72.5		3.48	1	04/15/09 16:47
158	2,3,3',4,4',6-Hexachlorobiphenyl		20.2		3.48	1	04/15/09 16:47
159	2,3,3',4,5,5'-Hexachlorobiphenyl		4.18		3.48	1	04/15/09 16:47
160	2,3,3',4,5,6-Hexachlorobiphenyl		U		3.48	1	04/15/09 16:47
161	2,3,3',4,5',6-Hexachlorobiphenyl		U		3.48	1	04/15/09 16:47
162	2,3,3',4',5,5'-Hexachlorobiphenyl		21.4	EMPC, B	3.48	1	04/15/09 16:47
164	2,3,3',4',5',6-Hexachlorobiphenyl		19.1		3.48	1	04/15/09 16:47
165	2,3,3',5,5',6-Hexachlorobiphenyl		U		3.48	1	04/15/09 16:47
167	2,3',4,4',5,5'-Hexachlorobiphenyl		32.7		3.48	1	04/15/09 16:47
169	3,3',4,4',5,5'-Hexachlorobiphenyl		27.6		3.48	1	04/15/09 16:47
170	2,2',3,3',4,4',5-Heptachlorobiphenyl		107	B	3.48	1	04/15/09 16:47
171/173	2,2',3,3',4,4',6-HpCB/2,2',3,3',4,5,6-HpCB		26.0		3.48	1	04/15/09 16:47
172	2,2',3,3',4,5,5'-Heptachlorobiphenyl		18.4		3.48	1	04/15/09 16:47
174	2,2',3,3',4,5,6'-Heptachlorobiphenyl		89.9		3.48	1	04/15/09 16:47
175	2,2',3,3',4,5',6-Heptachlorobiphenyl		U		3.48	1	04/15/09 16:47
176	2,2',3,3',4,6,6'-Heptachlorobiphenyl		13.2		3.48	1	04/15/09 16:47
177	2,2',3,3',4,5,6'-Heptachlorobiphenyl		49.5		3.48	1	04/15/09 16:47
178	2,2',3,3',5,5',6-Heptachlorobiphenyl		17.3		3.48	1	04/15/09 16:47
179	2,2',3,3',5,6,6'-Heptachlorobiphenyl		40.8		3.48	1	04/15/09 16:47
180/193	2,2',3,4,4',5,5'-HpCB/2,3,3',4',5,5',6-HpCB		248		3.48	1	04/15/09 16:47
181	2,2',3,4,4',5,6-Heptachlorobiphenyl		U		3.48	1	04/15/09 16:47
182	2,2',3,4,4',5,6'-Heptachlorobiphenyl		15.3	EMPC	3.48	1	04/15/09 16:47
183/185	2,2',3,4,4',5',6-HpCB/2,2',3,4,5,5',6-HpCB		49.8		3.48	1	04/15/09 16:47
184	2,2',3,4,4',6,6'-Heptachlorobiphenyl		U		3.48	1	04/15/09 16:47
186	2,2',3,4,5,6,6'-Heptachlorobiphenyl		U		3.48	1	04/15/09 16:47
187	2,2',3,4',5,5',6-Heptachlorobiphenyl		121		3.48	1	04/15/09 16:47
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl		12.2		3.48	1	04/15/09 16:47
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl		31.6		3.48	1	04/15/09 16:47
190	2,3,3',4,4',5,6-Heptachlorobiphenyl		26.8		3.48	1	04/15/09 16:47
191	2,3,3',4,4',5',6-Heptachlorobiphenyl		7.63		3.48	1	04/15/09 16:47
192	2,3,3',4,5,5',6-Heptachlorobiphenyl		U		3.48	1	04/15/09 16:47
194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl		48.1		3.48	1	04/15/09 16:47
195	2,2',3,3',4,4',5,6-Octachlorobiphenyl		19.4		3.48	1	04/15/09 16:47
196	2,2',3,3',4,4',5,6'-Octachlorobiphenyl		28.4	B	3.48	1	04/15/09 16:47
197/200	2,2',3,3',4,4',6,6'-OcCB/2,2',3,3',4,5,6,6'-OcCB		13.9	B	3.48	1	04/15/09 16:47
198/199	2,2',3,3',4,5,5',6-OcCB/2,2',3,3',4,5,5',6'-OcCB		53.7		3.48	1	04/15/09 16:47
201	2,2',3,3',4,5',6,6'-Octachlorobiphenyl		9.51		3.48	1	04/15/09 16:47



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: South

Lab ID: 0904005-02

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.30	Sample Wet Weight: 5.9g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	29.9		3.48	1	04/15/09 16:47
203	2,2',3,4,4',5,5',6-Octachlorobiphenyl	36.6		3.48	1	04/15/09 16:47
204	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	2.62	J	3.48	1	04/15/09 16:47
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	35.9		3.48	1	04/15/09 16:47
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	43.5		3.48	1	04/15/09 16:47
207	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	5.40	B	3.48	1	04/15/09 16:47
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	31.5		3.48	1	04/15/09 16:47
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	37.6		3.48	1	04/15/09 16:47
1-3	Total Monochlorobiphenyl	20.4		3.48	1	04/15/09 16:47
4-15	Total Dichlorobiphenyl	107	B	3.48	1	04/15/09 16:47
16-39	Total Trichlorobiphenyl	387	B	3.48	1	04/15/09 16:47
40-81	Total Tetrachlorobiphenyl	552	B	3.48	1	04/15/09 16:47
82-127	Total Pentachlorobiphenyl	676	B	3.48	1	04/15/09 16:47
128-169	Total Hexachlorobiphenyl	920	B	3.48	1	04/15/09 16:47
170-193	Total Heptachlorobiphenyl	874		3.48	1	04/15/09 16:47
194-205	Total Octachlorobiphenyl	278		3.48	1	04/15/09 16:47
206-208	Total Nonachlorobiphenyl	80.5		3.48	1	04/15/09 16:47
209	Decachlorobiphenyl	37.6		3.48	1	04/15/09 16:47

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1L	Surrogate: 13C12-2-Monochlorobiphenyl	7.62	A	8 %	15-150	04/15/09 16:47
3L	Surrogate: 13C12-4-Monochlorobiphenyl	10.7	A	11 %	15-150	04/15/09 16:47
4L	Surrogate: 13C12-2,2'-Dichlorobiphenyl	10.9	A	11 %	25-150	04/15/09 16:47
15L	Surrogate: 13C12-4,4'-Dichlorobiphenyl	22.4	A	22 %	25-150	04/15/09 16:47
19L	Surrogate: 13C12-2,2',6-Trichlorobiphenyl	14.9	A	15 %	25-150	04/15/09 16:47
37L	Surrogate: 13C12-3,4,4'-Trichlorobiphenyl	23.1	A	23 %	25-150	04/15/09 16:47
54L	Surrogate: 13C12-2,2',6,6'-Tetrachlorobiphenyl	15.4	A	15 %	25-150	04/15/09 16:47
77L	Surrogate: 13C12-3,3',4,4'-Tetrachlorobiphenyl	22.0	A	22 %	25-150	04/15/09 16:47
81L	Surrogate: 13C12-3,4,4',5-Tetrachlorobiphenyl	20.1	A	20 %	25-150	04/15/09 16:47
104L	Surrogate: 13C12-2,2',4,6,6'-Pentachlorobiphenyl	17.9	A	18 %	25-150	04/15/09 16:47
105L	Surrogate: 13C12-2,3,3',4,4'-Pentachlorobiphenyl	21.1	A	21 %	25-150	04/15/09 16:47
114 L	Surrogate: 13C12-2,3,4,4',5-Pentachlorobiphenyl	19.3	A	19 %	25-150	04/15/09 16:47
118 L	Surrogate: 13C12-2,3',4,4',5-Pentachlorobiphenyl	19.7	A	20 %	25-150	04/15/09 16:47

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: South

Lab ID: 0904005-02

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
123L	Surrogate: 13C12-2',3,4,4',5-Pentachlorobiphenyl	20.4	A	20 %	25-150	04/15/09 16:47
126L	Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl	21.1	A	21 %	25-150	04/15/09 16:47
155L	Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl	15.7	A	16 %	25-150	04/15/09 16:47
156L/157L	Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB	36.2	A	18 %	25-150	04/15/09 16:47
167L	Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl	17.3	A	17 %	25-150	04/15/09 16:47
169L	Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl	21.3	A	21 %	25-150	04/15/09 16:47
188L	Surrogate: 13C12-2,2',3,4',5,6,6'-Heptachlorobiphenyl	22.2	A	22 %	25-150	04/15/09 16:47
189L	Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl	20.4	A	20 %	25-150	04/15/09 16:47
202L	Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl	21.5	A	22 %	25-150	04/15/09 16:47
205L	Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl	15.0	A	15 %	25-150	04/15/09 16:47
206L	Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	15.0	A	15 %	25-150	04/15/09 16:47
208L	Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	13.8	A	14 %	25-150	04/15/09 16:47
209L	Surrogate: 13C12-Decachlorobiphenyl	14.3	A	14 %	25-150	04/15/09 16:47
28L	Surrogate: 13C12-2,4,4'-Trichlorobiphenyl	27.4	A	27 %	30-135	04/15/09 16:47
111 L	Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl	25.8	A	26 %	30-135	04/15/09 16:47
178L	Surrogate: 13C12-2,2',3,3',5,5',6-Heptachlorobiphenyl	24.3	A	24 %	30-135	04/15/09 16:47



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-18

Lab ID: 0904005-03

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets

Batch:	BI71205	Sample Weight:	%Solids: 97.50	Sample Wet Weight: 5.18g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1	2-Monochlorobiphenyl	3.68	J	3.96	1	04/15/09 17:51
2	3-Monochlorobiphenyl	2.55	J	3.96	1	04/15/09 17:51
3	4-Monochlorobiphenyl	4.79		3.96	1	04/15/09 17:51
4	2,2'-Dichlorobiphenyl	17.8	EMPC	3.96	1	04/15/09 17:51
5	2,3-Dichlorobiphenyl	U		3.96	1	04/15/09 17:51
6	2,3'-Dichlorobiphenyl	14.5	EMPC	3.96	1	04/15/09 17:51
7	2,4-Dichlorobiphenyl	U		3.96	1	04/15/09 17:51
8	2,4'-Dichlorobiphenyl	36.7	B	3.96	1	04/15/09 17:51
9	2,5-Dichlorobiphenyl	U		3.96	1	04/15/09 17:51
10	2,6-Dichlorobiphenyl	U		3.96	1	04/15/09 17:51
11	3,3'-Dichlorobiphenyl	50.7	B	3.96	1	04/15/09 17:51
12/13	3,4-DiCB/3,4'-DiCB	41.6	B	3.96	1	04/15/09 17:51
14	3,5-Dichlorobiphenyl	U		3.96	1	04/15/09 17:51
15	4,4'-Dichlorobiphenyl	65.3	B	3.96	1	04/15/09 17:51
16/24	2,2',3-TrCB/2,3,6-TrCB	38.3	B	3.96	1	04/15/09 17:51
17	2,2',4-Trichlorobiphenyl	19.8	B	3.96	1	04/15/09 17:51
18/30	2,2',5-TrCB/2,4,6-TrCB	66.9	B	3.96	1	04/15/09 17:51
19	2,2',6-Trichlorobiphenyl	9.23		3.96	1	04/15/09 17:51
20/28	2,3,3'-TrCB/2,4,4'-TrCB	179	B	3.96	1	04/15/09 17:51
21/33	2,3,4-TrCB/2,3',4'-TrCB	125	B	3.96	1	04/15/09 17:51
22	2,3,4'-Trichlorobiphenyl	97.4	B	3.96	1	04/15/09 17:51
23	2,3,5-Trichlorobiphenyl	U		3.96	1	04/15/09 17:51
25	2,3',4-Trichlorobiphenyl	15.6	B	3.96	1	04/15/09 17:51
26/29	2,3',5-TrCB/2,4,5-TrCB	45.9	B	3.96	1	04/15/09 17:51
27	2,3',6-Trichlorobiphenyl	8.20		3.96	1	04/15/09 17:51
31	2,4',5-Trichlorobiphenyl	215	B	3.96	1	04/15/09 17:51
32	2,4',6-Trichlorobiphenyl	36.1	B	3.96	1	04/15/09 17:51
34	2,3',5'-Trichlorobiphenyl	2.98	J	3.96	1	04/15/09 17:51
35	3,3',4-Trichlorobiphenyl	23.7	B	3.96	1	04/15/09 17:51
36	3,3',5-Trichlorobiphenyl	2.08	J	3.96	1	04/15/09 17:51
37	3,4,4'-Trichlorobiphenyl	111	B	3.96	1	04/15/09 17:51
38	3,4,5-Trichlorobiphenyl	26.8	EMPC	3.96	1	04/15/09 17:51
39	3,4',5-Trichlorobiphenyl	3.70	B, J	3.96	1	04/15/09 17:51
40/41/71	2,2',3,3'-TeCB/2,2',3,4-TeCB/2,3',4',6-TeCB	120		3.96	1	04/15/09 17:51
42	2,2',3,4'-Tetrachlorobiphenyl	51.1		3.96	1	04/15/09 17:51
43/73	2,2',3,5-TeCB/2,3',5',6-TeCB	10.4		3.96	1	04/15/09 17:51
44/47/65	2,2',3,5'-TeCB/2,2',4,4'-TeCB/2,3,5,6-TeCB	216		3.96	1	04/15/09 17:51
45/51	2,2',3,6-TeCB/2,2',4,6'-TeCB	32.7		3.96	1	04/15/09 17:51



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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-18

Lab ID: 0904005-03

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.50	Sample Wet Weight: 5.18g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
46	2,2',3,6'-Tetrachlorobiphenyl		11.9		3.96	1	04/15/09 17:51
48	2,2',4,5-Tetrachlorobiphenyl		35.0		3.96	1	04/15/09 17:51
49/69	2,2',4,5'-TeCB/2,3',4,6-TeCB		113		3.96	1	04/15/09 17:51
50/53	2,2',4,6-TeCB/2,2',5,6'-TeCB		29.3		3.96	1	04/15/09 17:51
52	2,2',5,5'-Tetrachlorobiphenyl		213		3.96	1	04/15/09 17:51
54	2,2',6,6'-Tetrachlorobiphenyl		U		3.96	1	04/15/09 17:51
55	2,3,3',4-Tetrachlorobiphenyl		U		3.96	1	04/15/09 17:51
56	2,3,3',4'-Tetrachlorobiphenyl		206		3.96	1	04/15/09 17:51
57	2,3,3',5-Tetrachlorobiphenyl		2.94	J	3.96	1	04/15/09 17:51
58	2,3,3',5'-Tetrachlorobiphenyl		2.52	J	3.96	1	04/15/09 17:51
59/62/75	2,3,3',6-TeCB/2,3,4,6-TeCB/2,4,4',6-TeCB		21.4		3.96	1	04/15/09 17:51
60	2,3,4,4'-Tetrachlorobiphenyl		84.0		3.96	1	04/15/09 17:51
61/70/74/76	TeCB-61/70/74/76		475		3.96	1	04/15/09 17:51
63	2,3,4',5-Tetrachlorobiphenyl		12.9		3.96	1	04/15/09 17:51
64	2,3,4',6-Tetrachlorobiphenyl		95.0		3.96	1	04/15/09 17:51
66	2,3',4,4'-Tetrachlorobiphenyl		280		3.96	1	04/15/09 17:51
67	2,3',4,5-Tetrachlorobiphenyl		10.9		3.96	1	04/15/09 17:51
68	2,3',4,5'-Tetrachlorobiphenyl		3.96		3.96	1	04/15/09 17:51
72	2,3',5,5'-Tetrachlorobiphenyl		5.74		3.96	1	04/15/09 17:51
77	3,3',4,4'-Tetrachlorobiphenyl		68.9	B	3.96	1	04/15/09 17:51
78	3,3',4,5-Tetrachlorobiphenyl		U		3.96	1	04/15/09 17:51
79	3,3',4,5'-Tetrachlorobiphenyl		9.07		3.96	1	04/15/09 17:51
80	3,3',5,5'-Tetrachlorobiphenyl		1.76	J	3.96	1	04/15/09 17:51
81	3,4,4',5-Tetrachlorobiphenyl		5.27	EMPC, B	3.96	1	04/15/09 17:51
82	2,2',3,3',4-Pentachlorobiphenyl		41.2		3.96	1	04/15/09 17:51
83/99/112	2,2',3,3',5-PeCB/2,2',4,4',5-PeCB/2,3,3',5,6-PeCB		142		3.96	1	04/15/09 17:51
84	2,2',3,3',6-Pentachlorobiphenyl		61.8		3.96	1	04/15/09 17:51
85/116/117	2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB		57.8		3.96	1	04/15/09 17:51
86/87/97/109/119/P2CB-86/87/97/109/119/125			224		3.96	1	04/15/09 17:51
88/91	2,2',3,4,6-PeCB/2,2',3,4',6-PeCB		38.2		3.96	1	04/15/09 17:51
89	2,2',3,4,6'-Pentachlorobiphenyl		6.42		3.96	1	04/15/09 17:51
90/101/113	2,2',3,4',5-PeCB/2,2',4,5,5'-PeCB/2,3,3',5',6-PeCB		420		3.96	1	04/15/09 17:51
92	2,2',3,5,5'-Pentachlorobiphenyl		65.3		3.96	1	04/15/09 17:51
93/100	2,2',3,5,6-PeCB/2,2',4,4',6-PeCB		3.26	J	3.96	1	04/15/09 17:51
94	2,2',3,5,6'-Pentachlorobiphenyl		4.44		3.96	1	04/15/09 17:51
95	2,2',3,5',6-Pentachlorobiphenyl		267		3.96	1	04/15/09 17:51
96	2,2',3,6,6'-Pentachlorobiphenyl		8.91	EMPC	3.96	1	04/15/09 17:51
98/102	2,2',3,4',6'-PeCB/2,2',4,5,6'-PeCB		13.6		3.96	1	04/15/09 17:51
103	2,2',4,5',6-Pentachlorobiphenyl		3.04	J	3.96	1	04/15/09 17:51

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-18

Lab ID: 0904005-03

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.50	Sample Wet Weight: 5.18g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
104	2,2',4,6,6'-Pentachlorobiphenyl		U		3.96	1	04/15/09 17:51
105	2,3,3',4,4'-Pentachlorobiphenyl		340	EMPC, B	3.96	1	04/15/09 17:51
106	2,3,3',4,5-Pentachlorobiphenyl		U		3.96	1	04/15/09 17:51
107	2,3,3',4',5-Pentachlorobiphenyl		38.6		3.96	1	04/15/09 17:51
108/124	2,3,3',4,5'-PeCB/2,3',4',5,5'-PeCB		18.3		3.96	1	04/15/09 17:51
110/115	2,3,3',4',6-PeCB/2,3,4,4',6-PeCB		416		3.96	1	04/15/09 17:51
111	2,3,3',5,5'-Pentachlorobiphenyl		U		3.96	1	04/15/09 17:51
114	2,3,4,4',5-Pentachlorobiphenyl		11.4		3.96	1	04/15/09 17:51
118	2,3',4,4',5-Pentachlorobiphenyl		321		3.96	1	04/15/09 17:51
120	2,3',4,5,5'-Pentachlorobiphenyl		4.08		3.96	1	04/15/09 17:51
121	2,3',4,5',6-Pentachlorobiphenyl		U		3.96	1	04/15/09 17:51
122	2,3,3',4',5'-Pentachlorobiphenyl		18.3	EMPC	3.96	1	04/15/09 17:51
123	2,3',4,4',5'-Pentachlorobiphenyl		8.59		3.96	1	04/15/09 17:51
126	3,3',4,4',5-Pentachlorobiphenyl		12.4		3.96	1	04/15/09 17:51
127	3,3',4,5,5'-Pentachlorobiphenyl		U		3.96	1	04/15/09 17:51
128/166	2,2',3,3',4,4'-HxCB/2,3,4,4',5,6-HxCB		88.3		3.96	1	04/15/09 17:51
129/138/163	HxCB-129/138/163		1100		3.96	1	04/15/09 17:51
130	2,2',3,3',4,5'-Hexachlorobiphenyl		43.6		3.96	1	04/15/09 17:51
131	2,2',3,3',4,6-Hexachlorobiphenyl		5.90		3.96	1	04/15/09 17:51
132	2,2',3,3',4,6'-Hexachlorobiphenyl		234		3.96	1	04/15/09 17:51
133	2,2',3,3',5,5'-Hexachlorobiphenyl		11.8		3.96	1	04/15/09 17:51
134/143	2,2',3,3',5,6-HxCB/2,2',3,4,5,6'-HxCB		30.7		3.96	1	04/15/09 17:51
135/151	2,2',3,3',5,6'-HxCB/2,2',3,5,5',6-HxCB		337		3.96	1	04/15/09 17:51
136	2,2',3,3',6,6'-Hexachlorobiphenyl		142		3.96	1	04/15/09 17:51
137	2,2',3,4,4',5-Hexachlorobiphenyl		15.5		3.96	1	04/15/09 17:51
139/140	2,2',3,4,4',6-HxCB/2,2',3,4,4',6'-HxCB		6.38		3.96	1	04/15/09 17:51
141	2,2',3,4,5,5'-Hexachlorobiphenyl		253		3.96	1	04/15/09 17:51
142	2,2',3,4,5,6-Hexachlorobiphenyl		U		3.96	1	04/15/09 17:51
144	2,2',3,4,5',6-Hexachlorobiphenyl		47.1		3.96	1	04/15/09 17:51
145	2,2',3,4,6,6'-Hexachlorobiphenyl		U		3.96	1	04/15/09 17:51
146	2,2',3,4',5,5'-Hexachlorobiphenyl		173		3.96	1	04/15/09 17:51
147/149	2,2',3,4',5,6-HxCB/2,2',3,4',5',6-HxCB		776		3.96	1	04/15/09 17:51
148	2,2',3,4',5,6'-Hexachlorobiphenyl		1.47	J	3.96	1	04/15/09 17:51
150	2,2',3,4',6,6'-Hexachlorobiphenyl		U		3.96	1	04/15/09 17:51
152	2,2',3,5,6,6'-Hexachlorobiphenyl		U		3.96	1	04/15/09 17:51
153/168	2,2',4,4',5,5'-HxCB/2,3',4,4',5',6-HxCB		1250		3.96	1	04/15/09 17:51
154	2,2',4,4',5,6'-Hexachlorobiphenyl		7.84		3.96	1	04/15/09 17:51
155	2,2',4,4',6,6'-Hexachlorobiphenyl		2.37	J	3.96	1	04/15/09 17:51



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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-18

Lab ID: 0904005-03

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.50	Sample Wet Weight: 5.18g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5'-HxCB		122		3.96	1	04/15/09 17:51
158	2,3,3',4,4',6-Hexachlorobiphenyl		116		3.96	1	04/15/09 17:51
159	2,3,3',4,5,5'-Hexachlorobiphenyl		15.4		3.96	1	04/15/09 17:51
160	2,3,3',4,5,6-Hexachlorobiphenyl		U		3.96	1	04/15/09 17:51
161	2,3,3',4,5',6-Hexachlorobiphenyl		U		3.96	1	04/15/09 17:51
162	2,3,3',4',5,5'-Hexachlorobiphenyl		56.6	EMPC, B	3.96	1	04/15/09 17:51
164	2,3,3',4',5',6-Hexachlorobiphenyl		98.2		3.96	1	04/15/09 17:51
165	2,3,3',5,5',6-Hexachlorobiphenyl		U		3.96	1	04/15/09 17:51
167	2,3',4,4',5,5'-Hexachlorobiphenyl		57.0		3.96	1	04/15/09 17:51
169	3,3',4,4',5,5'-Hexachlorobiphenyl		7.84	B	3.96	1	04/15/09 17:51
170	2,2',3,3',4,4',5-Heptachlorobiphenyl		665		3.96	1	04/15/09 17:51
171/173	2,2',3,3',4,4',6-HpCB/2,2',3,3',4,5,6-HpCB		169		3.96	1	04/15/09 17:51
172	2,2',3,3',4,5,5'-Heptachlorobiphenyl		110		3.96	1	04/15/09 17:51
174	2,2',3,3',4,5,6'-Heptachlorobiphenyl		638		3.96	1	04/15/09 17:51
175	2,2',3,3',4,5',6-Heptachlorobiphenyl		27.8		3.96	1	04/15/09 17:51
176	2,2',3,3',4,6,6'-Heptachlorobiphenyl		82.8		3.96	1	04/15/09 17:51
177	2,2',3,3',4,5',6'-Heptachlorobiphenyl		340		3.96	1	04/15/09 17:51
178	2,2',3,3',5,5',6-Heptachlorobiphenyl		105		3.96	1	04/15/09 17:51
179	2,2',3,3',5,6,6'-Heptachlorobiphenyl		268		3.96	1	04/15/09 17:51
180/193	2,2',3,4,4',5,5'-HpCB/2,3,3',4',5,5',6-HpCB		1750		3.96	1	04/15/09 17:51
181	2,2',3,4,4',5,6-Heptachlorobiphenyl		2.48	J	3.96	1	04/15/09 17:51
182	2,2',3,4,4',5,6'-Heptachlorobiphenyl		U		3.96	1	04/15/09 17:51
183/185	2,2',3,4,4',5',6-HpCB/2,2',3,4,5,5',6-HpCB		416		3.96	1	04/15/09 17:51
184	2,2',3,4,4',6,6'-Heptachlorobiphenyl		U		3.96	1	04/15/09 17:51
186	2,2',3,4,5,6,6'-Heptachlorobiphenyl		U		3.96	1	04/15/09 17:51
187	2,2',3,4',5,5',6-Heptachlorobiphenyl		689		3.96	1	04/15/09 17:51
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl		4.12		3.96	1	04/15/09 17:51
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl		30.0		3.96	1	04/15/09 17:51
190	2,3,3',4,4',5,6-Heptachlorobiphenyl		168		3.96	1	04/15/09 17:51
191	2,3,3',4,4',5',6-Heptachlorobiphenyl		32.6		3.96	1	04/15/09 17:51
192	2,3,3',4,5,5',6-Heptachlorobiphenyl		U		3.96	1	04/15/09 17:51
194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl		258		3.96	1	04/15/09 17:51
195	2,2',3,3',4,4',5,6-Octachlorobiphenyl		101		3.96	1	04/15/09 17:51
196	2,2',3,3',4,4',5,6'-Octachlorobiphenyl		175		3.96	1	04/15/09 17:51
197/200	2,2',3,3',4,4',6,6'-OcCB/2,2',3,3',4,5,6,6'-OcCB		57.4		3.96	1	04/15/09 17:51
198/199	2,2',3,3',4,5,5',6-OcCB/2,2',3,3',4,5,5',6-OcCB		305		3.96	1	04/15/09 17:51
201	2,2',3,3',4,5',6,6'-Octachlorobiphenyl		45.1		3.96	1	04/15/09 17:51
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl		49.9		3.96	1	04/15/09 17:51



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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-18

Lab ID: 0904005-03

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.50	Sample Wet Weight: 5.18g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
203	2,2',3,4,4',5,5',6-Octachlorobiphenyl	217		3.96	1	04/15/09 17:51
204	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	U		3.96	1	04/15/09 17:51
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	25.4		3.96	1	04/15/09 17:51
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	81.2		3.96	1	04/15/09 17:51
207	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	11.9		3.96	1	04/15/09 17:51
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	19.7		3.96	1	04/15/09 17:51
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	23.0		3.96	1	04/15/09 17:51
1-3	Total Monochlorobiphenyl	11.0		3.96	1	04/15/09 17:51
4-15	Total Dichlorobiphenyl	227	B	3.96	1	04/15/09 17:51
16-39	Total Trichlorobiphenyl	1030	B	3.96	1	04/15/09 17:51
40-81	Total Tetrachlorobiphenyl	2110		3.96	1	04/15/09 17:51
82-127	Total Pentachlorobiphenyl	2430		3.96	1	04/15/09 17:51
128-169	Total Hexachlorobiphenyl	4960		3.96	1	04/15/09 17:51
170-193	Total Heptachlorobiphenyl	5490		3.96	1	04/15/09 17:51
194-205	Total Octachlorobiphenyl	1230		3.96	1	04/15/09 17:51
206-208	Total Nonachlorobiphenyl	113		3.96	1	04/15/09 17:51
209	Decachlorobiphenyl	23.0		3.96	1	04/15/09 17:51

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1L	<i>Surrogate: 13C12-2-Monochlorobiphenyl</i>	13.9	A	14 %	15-150	04/15/09 17:51
3L	<i>Surrogate: 13C12-4-Monochlorobiphenyl</i>	17.5		18 %	15-150	04/15/09 17:51
4L	<i>Surrogate: 13C12-2,2'-Dichlorobiphenyl</i>	18.6	A	19 %	25-150	04/15/09 17:51
15L	<i>Surrogate: 13C12-4,4'-Dichlorobiphenyl</i>	32.8		33 %	25-150	04/15/09 17:51
19L	<i>Surrogate: 13C12-2,2',6-Trichlorobiphenyl</i>	23.5	A	24 %	25-150	04/15/09 17:51
37L	<i>Surrogate: 13C12-3,4,4'-Trichlorobiphenyl</i>	38.0		38 %	25-150	04/15/09 17:51
54L	<i>Surrogate: 13C12-2,2',6,6'-Tetrachlorobiphenyl</i>	23.8	A	24 %	25-150	04/15/09 17:51
77L	<i>Surrogate: 13C12-3,3',4,4'-Tetrachlorobiphenyl</i>	38.3		38 %	25-150	04/15/09 17:51
81L	<i>Surrogate: 13C12-3,4,4',5-Tetrachlorobiphenyl</i>	36.1		36 %	25-150	04/15/09 17:51
104L	<i>Surrogate: 13C12-2,2',4,6,6'-Pentachlorobiphenyl</i>	28.4		28 %	25-150	04/15/09 17:51
105L	<i>Surrogate: 13C12-2,3,3',4,4'-Pentachlorobiphenyl</i>	35.0		35 %	25-150	04/15/09 17:51
114 L	<i>Surrogate: 13C12-2,3,4,4',5-Pentachlorobiphenyl</i>	32.7		33 %	25-150	04/15/09 17:51
118 L	<i>Surrogate: 13C12-2,3',4,4',5-Pentachlorobiphenyl</i>	34.2		34 %	25-150	04/15/09 17:51



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-18

Lab ID: 0904005-03

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
123L	<i>Surrogate: 13C12-2',3,4,4',5-Pentachlorobiphenyl</i>	34.8		35 %	25-150	04/15/09 17:51
126L	<i>Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl</i>	38.1		38 %	25-150	04/15/09 17:51
155L	<i>Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl</i>	27.4		27 %	25-150	04/15/09 17:51
156L/157L	<i>Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB</i>	68.0		34 %	25-150	04/15/09 17:51
167L	<i>Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl</i>	33.3		33 %	25-150	04/15/09 17:51
169L	<i>Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl</i>	41.7		42 %	25-150	04/15/09 17:51
188L	<i>Surrogate: 13C12-2,2',3,4',5,6,6'-Heptachlorobiphenyl</i>	46.6		47 %	25-150	04/15/09 17:51
189L	<i>Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl</i>	43.6		44 %	25-150	04/15/09 17:51
202L	<i>Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl</i>	48.6		49 %	25-150	04/15/09 17:51
205L	<i>Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl</i>	30.3		30 %	25-150	04/15/09 17:51
206L	<i>Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl</i>	31.3		31 %	25-150	04/15/09 17:51
208L	<i>Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl</i>	29.4		29 %	25-150	04/15/09 17:51
209L	<i>Surrogate: 13C12-Decachlorobiphenyl</i>	28.6		29 %	25-150	04/15/09 17:51
28L	<i>Surrogate: 13C12-2,4,4'-Trichlorobiphenyl</i>	41.1		41 %	30-135	04/15/09 17:51
111 L	<i>Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl</i>	44.3		44 %	30-135	04/15/09 17:51
178L	<i>Surrogate: 13C12-2,2',3,3',5,5',6-Heptachlorobiphenyl</i>	43.5		44 %	30-135	04/15/09 17:51



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-99

Lab ID: 0904005-04

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets

Batch:	BI71205	Sample Weight:	%Solids: 97.50	Sample Wet Weight: 5.04g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1	2-Monochlorobiphenyl	2.76	J	4.07	1	04/15/09 18:56
2	3-Monochlorobiphenyl	1.48	J	4.07	1	04/15/09 18:56
3	4-Monochlorobiphenyl	2.52	J	4.07	1	04/15/09 18:56
4	2,2'-Dichlorobiphenyl	8.95		4.07	1	04/15/09 18:56
5	2,3-Dichlorobiphenyl	U		4.07	1	04/15/09 18:56
6	2,3'-Dichlorobiphenyl	9.32	EMPC	4.07	1	04/15/09 18:56
7	2,4-Dichlorobiphenyl	8.02	EMPC	4.07	1	04/15/09 18:56
8	2,4'-Dichlorobiphenyl	24.0	B	4.07	1	04/15/09 18:56
9	2,5-Dichlorobiphenyl	2.43	EMPC, J	4.07	1	04/15/09 18:56
10	2,6-Dichlorobiphenyl	U		4.07	1	04/15/09 18:56
11	3,3'-Dichlorobiphenyl	42.3	B	4.07	1	04/15/09 18:56
12/13	3,4-DiCB/3,4'-DiCB	6.19	B	4.07	1	04/15/09 18:56
14	3,5-Dichlorobiphenyl	U		4.07	1	04/15/09 18:56
15	4,4'-Dichlorobiphenyl	25.4	B	4.07	1	04/15/09 18:56
16/24	2,2',3-TrCB/2,3,6-TrCB	13.8	B	4.07	1	04/15/09 18:56
17	2,2',4-Trichlorobiphenyl	12.0	B	4.07	1	04/15/09 18:56
18/30	2,2',5-TrCB/2,4,6-TrCB	31.9	B	4.07	1	04/15/09 18:56
19	2,2',6-Trichlorobiphenyl	6.31	EMPC	4.07	1	04/15/09 18:56
20/28	2,3,3'-TrCB/2,4,4'-TrCB	105	B	4.07	1	04/15/09 18:56
21/33	2,3,4-TrCB/2,3',4'-TrCB	41.1	B	4.07	1	04/15/09 18:56
22	2,3,4'-Trichlorobiphenyl	46.8	B	4.07	1	04/15/09 18:56
23	2,3,5-Trichlorobiphenyl	U		4.07	1	04/15/09 18:56
25	2,3',4-Trichlorobiphenyl	6.35	B	4.07	1	04/15/09 18:56
26/29	2,3',5-TrCB/2,4,5-TrCB	14.4	B	4.07	1	04/15/09 18:56
27	2,3',6-Trichlorobiphenyl	4.64		4.07	1	04/15/09 18:56
31	2,4',5-Trichlorobiphenyl	87.5	B	4.07	1	04/15/09 18:56
32	2,4',6-Trichlorobiphenyl	22.7	B	4.07	1	04/15/09 18:56
34	2,3',5'-Trichlorobiphenyl	U		4.07	1	04/15/09 18:56
35	3,3',4-Trichlorobiphenyl	4.27	B	4.07	1	04/15/09 18:56
36	3,3',5-Trichlorobiphenyl	1.27	J	4.07	1	04/15/09 18:56
37	3,4,4'-Trichlorobiphenyl	39.2	B	4.07	1	04/15/09 18:56
38	3,4,5-Trichlorobiphenyl	U		4.07	1	04/15/09 18:56
39	3,4',5-Trichlorobiphenyl	3.35	B, J	4.07	1	04/15/09 18:56
40/41/71	2,2',3,3'-TeCB/2,2',3,4-TeCB/2,3',4',6-TeCB	70.8	B	4.07	1	04/15/09 18:56
42	2,2',3,4'-Tetrachlorobiphenyl	30.5	B	4.07	1	04/15/09 18:56
43/73	2,2',3,5-TeCB/2,3',5',6-TeCB	3.39	J	4.07	1	04/15/09 18:56
44/47/65	2,2',3,5'-TeCB/2,2',4,4'-TeCB/2,3,5,6-TeCB	147	B	4.07	1	04/15/09 18:56
45/51	2,2',3,6-TeCB/2,2',4,6'-TeCB	21.7	B	4.07	1	04/15/09 18:56



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-99

Lab ID: 0904005-04

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.50	Sample Wet Weight: 5.04g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
46	2,2',3,6'-Tetrachlorobiphenyl		7.04		4.07	1	04/15/09 18:56
48	2,2',4,5'-Tetrachlorobiphenyl		20.1		4.07	1	04/15/09 18:56
49/69	2,2',4,5'-TeCB/2,3',4,6-TeCB		80.6	B	4.07	1	04/15/09 18:56
50/53	2,2',4,6-TeCB/2,2',5,6'-TeCB		20.4		4.07	1	04/15/09 18:56
52	2,2',5,5'-Tetrachlorobiphenyl		138	B	4.07	1	04/15/09 18:56
54	2,2',6,6'-Tetrachlorobiphenyl		U		4.07	1	04/15/09 18:56
55	2,3,3',4-Tetrachlorobiphenyl		1.83	J	4.07	1	04/15/09 18:56
56	2,3,3',4'-Tetrachlorobiphenyl		96.5	B	4.07	1	04/15/09 18:56
57	2,3,3',5-Tetrachlorobiphenyl		U		4.07	1	04/15/09 18:56
58	2,3,3',5'-Tetrachlorobiphenyl		U		4.07	1	04/15/09 18:56
59/62/75	2,3,3',6-TeCB/2,3,4,6-TeCB/2,4,4',6-TeCB		12.7		4.07	1	04/15/09 18:56
60	2,3,4,4'-Tetrachlorobiphenyl		48.4	B	4.07	1	04/15/09 18:56
61/70/74/76	TeCB-61/70/74/76		260	B	4.07	1	04/15/09 18:56
63	2,3,4',5-Tetrachlorobiphenyl		6.27		4.07	1	04/15/09 18:56
64	2,3,4',6-Tetrachlorobiphenyl		68.0	B	4.07	1	04/15/09 18:56
66	2,3',4,4'-Tetrachlorobiphenyl		168		4.07	1	04/15/09 18:56
67	2,3',4,5-Tetrachlorobiphenyl		3.25	EMPC, J	4.07	1	04/15/09 18:56
68	2,3',4,5'-Tetrachlorobiphenyl		2.64	EMPC, J	4.07	1	04/15/09 18:56
72	2,3',5,5'-Tetrachlorobiphenyl		1.52	J	4.07	1	04/15/09 18:56
77	3,3',4,4'-Tetrachlorobiphenyl		32.0	B	4.07	1	04/15/09 18:56
78	3,3',4,5-Tetrachlorobiphenyl		U		4.07	1	04/15/09 18:56
79	3,3',4,5'-Tetrachlorobiphenyl		2.34	J	4.07	1	04/15/09 18:56
80	3,3',5,5'-Tetrachlorobiphenyl		U		4.07	1	04/15/09 18:56
81	3,4,4',5-Tetrachlorobiphenyl		4.68	EMPC, B	4.07	1	04/15/09 18:56
82	2,2',3,3',4-Pentachlorobiphenyl		20.1	B	4.07	1	04/15/09 18:56
83/99/112	2,2',3,3',5-PeCB/2,2',4,4',5-PeCB/2,3,3',5,6-PeCB		87.9		4.07	1	04/15/09 18:56
84	2,2',3,3',6-Pentachlorobiphenyl		35.4		4.07	1	04/15/09 18:56
85/116/117	2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB		37.8	B	4.07	1	04/15/09 18:56
86/87/97/109/119/PxCB-86/87/97/109/119/125			141		4.07	1	04/15/09 18:56
88/91	2,2',3,4,6-PeCB/2,2',3,4',6-PeCB		20.8		4.07	1	04/15/09 18:56
89	2,2',3,4,6'-Pentachlorobiphenyl		2.74	J	4.07	1	04/15/09 18:56
90/101/113	2,2',3,4',5-PeCB/2,2',4,5,5'-PeCB/2,3,3',5',6-PeCB		307		4.07	1	04/15/09 18:56
92	2,2',3,5,5'-Pentachlorobiphenyl		41.5		4.07	1	04/15/09 18:56
93/100	2,2',3,5,6-PeCB/2,2',4,4',6-PeCB		1.35	J	4.07	1	04/15/09 18:56
94	2,2',3,5,6'-Pentachlorobiphenyl		1.11	J	4.07	1	04/15/09 18:56
95	2,2',3,5',6-Pentachlorobiphenyl		208		4.07	1	04/15/09 18:56
96	2,2',3,6,6'-Pentachlorobiphenyl		U		4.07	1	04/15/09 18:56
98/102	2,2',3,4',6'-PeCB/2,2',4,5,6'-PeCB		6.06		4.07	1	04/15/09 18:56



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-99

Lab ID: 0904005-04

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.50	Sample Wet Weight: 5.04g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
103	2,2',4,5',6-Pentachlorobiphenyl		2.26	J	4.07	1	04/15/09 18:56
104	2,2',4,6,6'-Pentachlorobiphenyl		U		4.07	1	04/15/09 18:56
105	2,3,3',4,4'-Pentachlorobiphenyl		97.3	B	4.07	1	04/15/09 18:56
106	2,3,3',4,5-Pentachlorobiphenyl		U		4.07	1	04/15/09 18:56
107	2,3,3',4',5-Pentachlorobiphenyl		19.0		4.07	1	04/15/09 18:56
108/124	2,3,3',4,5'-PeCB/2,3',4',5,5'-PeCB		9.77		4.07	1	04/15/09 18:56
110/115	2,3,3',4',6-PeCB/2,3,4,4',6-PeCB		296		4.07	1	04/15/09 18:56
111	2,3,3',5,5'-Pentachlorobiphenyl		6.88		4.07	1	04/15/09 18:56
114	2,3,4,4',5-Pentachlorobiphenyl		9.48		4.07	1	04/15/09 18:56
118	2,3',4,4',5-Pentachlorobiphenyl		213		4.07	1	04/15/09 18:56
120	2,3',4,5,5'-Pentachlorobiphenyl		2.03	J	4.07	1	04/15/09 18:56
121	2,3',4,5',6-Pentachlorobiphenyl		U		4.07	1	04/15/09 18:56
122	2,3,3',4',5'-Pentachlorobiphenyl		3.17	J	4.07	1	04/15/09 18:56
123	2,3',4,4',5'-Pentachlorobiphenyl		6.67		4.07	1	04/15/09 18:56
126	3,3',4,4',5-Pentachlorobiphenyl		12.6		4.07	1	04/15/09 18:56
127	3,3',4,5,5'-Pentachlorobiphenyl		U		4.07	1	04/15/09 18:56
128/166	2,2',3,3',4,4'-HxCB/2,3,4,4',5,6-HxCB		65.1		4.07	1	04/15/09 18:56
129/138/163	HxCB-129/138/163		847		4.07	1	04/15/09 18:56
130	2,2',3,3',4,5'-Hexachlorobiphenyl		31.2		4.07	1	04/15/09 18:56
131	2,2',3,3',4,6-Hexachlorobiphenyl		3.66	J	4.07	1	04/15/09 18:56
132	2,2',3,3',4,6'-Hexachlorobiphenyl		179		4.07	1	04/15/09 18:56
133	2,2',3,3',5,5'-Hexachlorobiphenyl		8.71		4.07	1	04/15/09 18:56
134/143	2,2',3,3',5,6-HxCB/2,2',3,4,5,6'-HxCB		19.9		4.07	1	04/15/09 18:56
135/151	2,2',3,3',5,6'-HxCB/2,2',3,5,5',6-HxCB		286		4.07	1	04/15/09 18:56
136	2,2',3,3',6,6'-Hexachlorobiphenyl		112		4.07	1	04/15/09 18:56
137	2,2',3,4,4',5-Hexachlorobiphenyl		U		4.07	1	04/15/09 18:56
139/140	2,2',3,4,4',6-HxCB/2,2',3,4,4',6'-HxCB		4.68	EMPC	4.07	1	04/15/09 18:56
141	2,2',3,4,5,5'-Hexachlorobiphenyl		204		4.07	1	04/15/09 18:56
142	2,2',3,4,5,6-Hexachlorobiphenyl		U		4.07	1	04/15/09 18:56
144	2,2',3,4,5',6-Hexachlorobiphenyl		38.7		4.07	1	04/15/09 18:56
145	2,2',3,4,6,6'-Hexachlorobiphenyl		U		4.07	1	04/15/09 18:56
146	2,2',3,4',5,5'-Hexachlorobiphenyl		130		4.07	1	04/15/09 18:56
147/149	2,2',3,4',5,6-HxCB/2,2',3,4',5',6-HxCB		639		4.07	1	04/15/09 18:56
148	2,2',3,4',5,6'-Hexachlorobiphenyl		U		4.07	1	04/15/09 18:56
150	2,2',3,4',6,6'-Hexachlorobiphenyl		U		4.07	1	04/15/09 18:56
152	2,2',3,5,6,6'-Hexachlorobiphenyl		U		4.07	1	04/15/09 18:56
153/168	2,2',4,4',5,5'-HxCB/2,3',4,4',5',6-HxCB		961		4.07	1	04/15/09 18:56
154	2,2',4,4',5,6'-Hexachlorobiphenyl		6.27		4.07	1	04/15/09 18:56



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-99

Lab ID: 0904005-04

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.50	Sample Wet Weight: 5.04g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
155	2,2',4,4',6,6'-Hexachlorobiphenyl		1.29	J	4.07	1	04/15/09 18:56
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5'-HxCB		100		4.07	1	04/15/09 18:56
158	2,3,3',4,4',6-Hexachlorobiphenyl		87.9		4.07	1	04/15/09 18:56
159	2,3,3',4,5,5'-Hexachlorobiphenyl		12.0		4.07	1	04/15/09 18:56
160	2,3,3',4,5,6-Hexachlorobiphenyl		U		4.07	1	04/15/09 18:56
161	2,3,3',4,5',6-Hexachlorobiphenyl		U		4.07	1	04/15/09 18:56
162	2,3,3',4',5,5'-Hexachlorobiphenyl		5.29	B	4.07	1	04/15/09 18:56
164	2,3,3',4',5',6-Hexachlorobiphenyl		81.8		4.07	1	04/15/09 18:56
165	2,3,3',5,5',6-Hexachlorobiphenyl		U		4.07	1	04/15/09 18:56
167	2,3',4,4',5,5'-Hexachlorobiphenyl		44.8		4.07	1	04/15/09 18:56
169	3,3',4,4',5,5'-Hexachlorobiphenyl		10.3	B	4.07	1	04/15/09 18:56
170	2,2',3,3',4,4',5-Heptachlorobiphenyl		484		4.07	1	04/15/09 18:56
171/173	2,2',3,3',4,4',6-HpCB/2,2',3,3',4,5,6-HpCB		132		4.07	1	04/15/09 18:56
172	2,2',3,3',4,5,5'-Heptachlorobiphenyl		89.5		4.07	1	04/15/09 18:56
174	2,2',3,3',4,5,6'-Heptachlorobiphenyl		517		4.07	1	04/15/09 18:56
175	2,2',3,3',4,5',6-Heptachlorobiphenyl		18.9		4.07	1	04/15/09 18:56
176	2,2',3,3',4,6,6'-Heptachlorobiphenyl		67.2		4.07	1	04/15/09 18:56
177	2,2',3,3',4,5',6-Heptachlorobiphenyl		278		4.07	1	04/15/09 18:56
178	2,2',3,3',5,5',6-Heptachlorobiphenyl		85.9		4.07	1	04/15/09 18:56
179	2,2',3,3',5,6,6'-Heptachlorobiphenyl		224		4.07	1	04/15/09 18:56
180/193	2,2',3,4,4',5,5'-HpCB/2,3,3',4',5,5',6-HpCB		1390		4.07	1	04/15/09 18:56
181	2,2',3,4,4',5,6-Heptachlorobiphenyl		2.17	J	4.07	1	04/15/09 18:56
182	2,2',3,4,4',5,6'-Heptachlorobiphenyl		U		4.07	1	04/15/09 18:56
183/185	2,2',3,4,4',5',6-HpCB/2,2',3,4,5,5',6-HpCB		343		4.07	1	04/15/09 18:56
184	2,2',3,4,4',6,6'-Heptachlorobiphenyl		U		4.07	1	04/15/09 18:56
186	2,2',3,4,5,6,6'-Heptachlorobiphenyl		U		4.07	1	04/15/09 18:56
187	2,2',3,4',5,5',6-Heptachlorobiphenyl		545		4.07	1	04/15/09 18:56
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl		4.60		4.07	1	04/15/09 18:56
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl		29.5		4.07	1	04/15/09 18:56
190	2,3,3',4,4',5,6-Heptachlorobiphenyl		133		4.07	1	04/15/09 18:56
191	2,3,3',4,4',5',6-Heptachlorobiphenyl		26.3		4.07	1	04/15/09 18:56
192	2,3,3',4,5,5',6-Heptachlorobiphenyl		U		4.07	1	04/15/09 18:56
194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl		210		4.07	1	04/15/09 18:56
195	2,2',3,3',4,4',5,6-Octachlorobiphenyl		75.3		4.07	1	04/15/09 18:56
196	2,2',3,3',4,4',5,6'-Octachlorobiphenyl		139		4.07	1	04/15/09 18:56
197/200	2,2',3,3',4,4',6,6'-OcCB/2,2',3,3',4,5,6,6'-OcCB		45.6		4.07	1	04/15/09 18:56
198/199	2,2',3,3',4,5,5',6-OcCB/2,2',3,3',4,5,5',6'-OcCB		244		4.07	1	04/15/09 18:56
201	2,2',3,3',4,5',6,6'-Octachlorobiphenyl		35.8		4.07	1	04/15/09 18:56



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-99

Lab ID: 0904005-04

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.50	Sample Wet Weight: 5.04g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	42.7		4.07	1	04/15/09 18:56
203	2,2',3,4,4',5,5',6-Octachlorobiphenyl	171		4.07	1	04/15/09 18:56
204	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	U		4.07	1	04/15/09 18:56
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	25.8		4.07	1	04/15/09 18:56
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	73.7		4.07	1	04/15/09 18:56
207	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	9.85		4.07	1	04/15/09 18:56
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	22.7		4.07	1	04/15/09 18:56
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	26.4		4.07	1	04/15/09 18:56
1-3	Total Monochlorobiphenyl	6.76		4.07	1	04/15/09 18:56
4-15	Total Dichlorobiphenyl	127	B	4.07	1	04/15/09 18:56
16-39	Total Trichlorobiphenyl	440	B	4.07	1	04/15/09 18:56
40-81	Total Tetrachlorobiphenyl	1240	B	4.07	1	04/15/09 18:56
82-127	Total Pentachlorobiphenyl	1590		4.07	1	04/15/09 18:56
128-169	Total Hexachlorobiphenyl	3860		4.07	1	04/15/09 18:56
170-193	Total Heptachlorobiphenyl	4370		4.07	1	04/15/09 18:56
194-205	Total Octachlorobiphenyl	990		4.07	1	04/15/09 18:56
206-208	Total Nonachlorobiphenyl	106		4.07	1	04/15/09 18:56
209	Decachlorobiphenyl	26.4		4.07	1	04/15/09 18:56

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1L	<i>Surrogate: 13C12-2-Monochlorobiphenyl</i>	18.5		18 %	15-150	04/15/09 18:56
3L	<i>Surrogate: 13C12-4-Monochlorobiphenyl</i>	25.1		25 %	15-150	04/15/09 18:56
4L	<i>Surrogate: 13C12-2,2'-Dichlorobiphenyl</i>	24.9		25 %	25-150	04/15/09 18:56
15L	<i>Surrogate: 13C12-4,4'-Dichlorobiphenyl</i>	51.0		51 %	25-150	04/15/09 18:56
19L	<i>Surrogate: 13C12-2,2',6-Trichlorobiphenyl</i>	33.8		34 %	25-150	04/15/09 18:56
37L	<i>Surrogate: 13C12-3,4,4'-Trichlorobiphenyl</i>	54.0		54 %	25-150	04/15/09 18:56
54L	<i>Surrogate: 13C12-2,2',6,6'-Tetrachlorobiphenyl</i>	39.4		39 %	25-150	04/15/09 18:56
77L	<i>Surrogate: 13C12-3,3',4,4'-Tetrachlorobiphenyl</i>	54.0		54 %	25-150	04/15/09 18:56
81L	<i>Surrogate: 13C12-3,4,4',5-Tetrachlorobiphenyl</i>	51.4		51 %	25-150	04/15/09 18:56
104L	<i>Surrogate: 13C12-2,2',4,6,6'-Pentachlorobiphenyl</i>	41.9		42 %	25-150	04/15/09 18:56
105L	<i>Surrogate: 13C12-2,3,3',4,4'-Pentachlorobiphenyl</i>	46.4		46 %	25-150	04/15/09 18:56
114 L	<i>Surrogate: 13C12-2,3,4,4',5-Pentachlorobiphenyl</i>	42.3		42 %	25-150	04/15/09 18:56
118 L	<i>Surrogate: 13C12-2,3',4,4',5-Pentachlorobiphenyl</i>	44.2		44 %	25-150	04/15/09 18:56



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: B-99

Lab ID: 0904005-04

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
123L	<i>Surrogate: 13C12-2',3,4,4',5-Pentachlorobiphenyl</i>	45.4		45 %	25-150	04/15/09 18:56
126L	<i>Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl</i>	48.0		48 %	25-150	04/15/09 18:56
155L	<i>Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl</i>	38.0		38 %	25-150	04/15/09 18:56
156L/157L	<i>Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB</i>	86.4		43 %	25-150	04/15/09 18:56
167L	<i>Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl</i>	43.0		43 %	25-150	04/15/09 18:56
169L	<i>Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl</i>	52.5		52 %	25-150	04/15/09 18:56
188L	<i>Surrogate: 13C12-2,2',3,4',5,6,6'-Heptachlorobiphenyl</i>	61.2		61 %	25-150	04/15/09 18:56
189L	<i>Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl</i>	49.6		50 %	25-150	04/15/09 18:56
202L	<i>Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl</i>	60.1		60 %	25-150	04/15/09 18:56
205L	<i>Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl</i>	35.2		35 %	25-150	04/15/09 18:56
206L	<i>Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl</i>	34.4		34 %	25-150	04/15/09 18:56
208L	<i>Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl</i>	33.5		34 %	25-150	04/15/09 18:56
209L	<i>Surrogate: 13C12-Decachlorobiphenyl</i>	32.2		32 %	25-150	04/15/09 18:56
28L	<i>Surrogate: 13C12-2,4,4'-Trichlorobiphenyl</i>	72.2		72 %	30-135	04/15/09 18:56
111 L	<i>Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl</i>	59.6		60 %	30-135	04/15/09 18:56
178L	<i>Surrogate: 13C12-2,2',3,3',5,5',6-Heptachlorobiphenyl</i>	53.9		54 %	30-135	04/15/09 18:56



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northeast

Lab ID: 0904005-05

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets

Batch:	BI71205	Sample Weight:	%Solids: 97.60	Sample Wet Weight: 5.52g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1	2-Monochlorobiphenyl	1.48	EMPC, J	3.71	1	04/15/09 20:00
2	3-Monochlorobiphenyl	1.13	J	3.71	1	04/15/09 20:00
3	4-Monochlorobiphenyl	1.18	J	3.71	1	04/15/09 20:00
4	2,2'-Dichlorobiphenyl	U		3.71	1	04/15/09 20:00
5	2,3-Dichlorobiphenyl	U		3.71	1	04/15/09 20:00
6	2,3'-Dichlorobiphenyl	U		3.71	1	04/15/09 20:00
7	2,4-Dichlorobiphenyl	U		3.71	1	04/15/09 20:00
8	2,4'-Dichlorobiphenyl	9.65	EMPC, B	3.71	1	04/15/09 20:00
9	2,5-Dichlorobiphenyl	U		3.71	1	04/15/09 20:00
10	2,6-Dichlorobiphenyl	U		3.71	1	04/15/09 20:00
11	3,3'-Dichlorobiphenyl	31.1	B	3.71	1	04/15/09 20:00
12/13	3,4-DiCB/3,4'-DiCB	U		3.71	1	04/15/09 20:00
14	3,5-Dichlorobiphenyl	U		3.71	1	04/15/09 20:00
15	4,4'-Dichlorobiphenyl	7.16	B	3.71	1	04/15/09 20:00
16/24	2,2',3-TrCB/2,3,6-TrCB	2.29	B, J	3.71	1	04/15/09 20:00
17	2,2',4-Trichlorobiphenyl	1.90	B, J	3.71	1	04/15/09 20:00
18/30	2,2',5-TrCB/2,4,6-TrCB	5.83	B	3.71	1	04/15/09 20:00
19	2,2',6-Trichlorobiphenyl	1.21	EMPC, J	3.71	1	04/15/09 20:00
20/28	2,3,3'-TrCB/2,4,4'-TrCB	12.1	EMPC, B	3.71	1	04/15/09 20:00
21/33	2,3,4-TrCB/2,3',4'-TrCB	8.09	B	3.71	1	04/15/09 20:00
22	2,3,4'-Trichlorobiphenyl	5.31	EMPC, B	3.71	1	04/15/09 20:00
23	2,3,5-Trichlorobiphenyl	U		3.71	1	04/15/09 20:00
25	2,3',4-Trichlorobiphenyl	U		3.71	1	04/15/09 20:00
26/29	2,3',5-TrCB/2,4,5-TrCB	2.46	EMPC, B, J	3.71	1	04/15/09 20:00
27	2,3',6-Trichlorobiphenyl	U		3.71	1	04/15/09 20:00
31	2,4',5-Trichlorobiphenyl	12.9	B	3.71	1	04/15/09 20:00
32	2,4',6-Trichlorobiphenyl	2.20	B, J	3.71	1	04/15/09 20:00
34	2,3',5'-Trichlorobiphenyl	U		3.71	1	04/15/09 20:00
35	3,3',4-Trichlorobiphenyl	U		3.71	1	04/15/09 20:00
36	3,3',5-Trichlorobiphenyl	U		3.71	1	04/15/09 20:00
37	3,4,4'-Trichlorobiphenyl	5.68	B	3.71	1	04/15/09 20:00
38	3,4,5-Trichlorobiphenyl	U		3.71	1	04/15/09 20:00
39	3,4',5-Trichlorobiphenyl	U		3.71	1	04/15/09 20:00
40/41/71	2,2',3,3'-TeCB/2,2',3,4-TeCB/2,3',4',6-TeCB	5.12	B	3.71	1	04/15/09 20:00
42	2,2',3,4'-Tetrachlorobiphenyl	2.01	B, J	3.71	1	04/15/09 20:00
43/73	2,2',3,5-TeCB/2,3',5',6-TeCB	U		3.71	1	04/15/09 20:00
44/47/65	2,2',3,5'-TeCB/2,2',4,4'-TeCB/2,3,5,6-TeCB	22.2	B	3.71	1	04/15/09 20:00
45/51	2,2',3,6-TeCB/2,2',4,6'-TeCB	2.81	B, J	3.71	1	04/15/09 20:00



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northeast

Lab ID: 0904005-05

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.60	Sample Wet Weight: 5.52g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
46	2,2',3,6'-Tetrachlorobiphenyl	0.590	J	3.71	1	04/15/09 20:00
48	2,2',4,5'-Tetrachlorobiphenyl	1.24	J	3.71	1	04/15/09 20:00
49/69	2,2',4,5'-TeCB/2,3',4,6-TeCB	7.02	B	3.71	1	04/15/09 20:00
50/53	2,2',4,6-TeCB/2,2',5,6'-TeCB	1.62	J	3.71	1	04/15/09 20:00
52	2,2',5,5'-Tetrachlorobiphenyl	16.7	B	3.71	1	04/15/09 20:00
54	2,2',6,6'-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
55	2,3,3',4-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
56	2,3,3',4'-Tetrachlorobiphenyl	7.72	B	3.71	1	04/15/09 20:00
57	2,3,3',5-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
58	2,3,3',5'-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
59/62/75	2,3,3',6-TeCB/2,3,4,6-TeCB/2,4,4',6-TeCB	0.613	J	3.71	1	04/15/09 20:00
60	2,3,4,4'-Tetrachlorobiphenyl	3.79	B	3.71	1	04/15/09 20:00
61/70/74/76	TeCB-61/70/74/76	27.3	B	3.71	1	04/15/09 20:00
63	2,3,4',5-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
64	2,3,4',6-Tetrachlorobiphenyl	5.09	B	3.71	1	04/15/09 20:00
66	2,3',4,4'-Tetrachlorobiphenyl	12.5	B	3.71	1	04/15/09 20:00
67	2,3',4,5-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
68	2,3',4,5'-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
72	2,3',5,5'-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
77	3,3',4,4'-Tetrachlorobiphenyl	9.10	B	3.71	1	04/15/09 20:00
78	3,3',4,5-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
79	3,3',4,5'-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
80	3,3',5,5'-Tetrachlorobiphenyl	U		3.71	1	04/15/09 20:00
81	3,4,4',5-Tetrachlorobiphenyl	4.23	B	3.71	1	04/15/09 20:00
82	2,2',3,3',4-Pentachlorobiphenyl	3.01	B, J	3.71	1	04/15/09 20:00
83/99/112	2,2',3,3',5-PeCB/2,2',4,4',5-PeCB/2,3,3',5,6-PeCB	16.6	B	3.71	1	04/15/09 20:00
84	2,2',3,3',6-Pentachlorobiphenyl	8.17		3.71	1	04/15/09 20:00
85/116/117	2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	8.06	B	3.71	1	04/15/09 20:00
86/87/97/109/119/125	PeCB-86/87/97/109/119/125	27.3		3.71	1	04/15/09 20:00
88/91	2,2',3,4,6-PeCB/2,2',3,4',6-PeCB	4.31		3.71	1	04/15/09 20:00
89	2,2',3,4,6'-Pentachlorobiphenyl	U		3.71	1	04/15/09 20:00
90/101/113	2,2',3,4',5-PeCB/2,2',4,5,5'-PeCB/2,3,3',5',6-PeCB	42.3	B	3.71	1	04/15/09 20:00
92	2,2',3,5,5'-Pentachlorobiphenyl	7.31		3.71	1	04/15/09 20:00
93/100	2,2',3,5,6-PeCB/2,2',4,4',6-PeCB	U		3.71	1	04/15/09 20:00
94	2,2',3,5,6'-Pentachlorobiphenyl	U		3.71	1	04/15/09 20:00
95	2,2',3,5',6-Pentachlorobiphenyl	31.6	B	3.71	1	04/15/09 20:00
96	2,2',3,6,6'-Pentachlorobiphenyl	U		3.71	1	04/15/09 20:00
98/102	2,2',3,4,6'-PeCB/2,2',4,5,6'-PeCB	U		3.71	1	04/15/09 20:00



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701 Mapes Road
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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northeast

Lab ID: 0904005-05

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.60	Sample Wet Weight: 5.52g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
103	2,2',4,5',6-Pentachlorobiphenyl		U		3.71	1	04/15/09 20:00
104	2,2',4,6,6'-Pentachlorobiphenyl		U		3.71	1	04/15/09 20:00
105	2,3,3',4,4'-Pentachlorobiphenyl		24.5	B	3.71	1	04/15/09 20:00
106	2,3,3',4,5-Pentachlorobiphenyl		U		3.71	1	04/15/09 20:00
107	2,3,3',4',5-Pentachlorobiphenyl		3.40	J	3.71	1	04/15/09 20:00
108/124	2,3,3',4,5'-PeCB/2,3',4',5,5'-PeCB		2.94	J	3.71	1	04/15/09 20:00
110/115	2,3,3',4',6-PeCB/2,3,4,4',6-PeCB		47.5	B	3.71	1	04/15/09 20:00
111	2,3,3',5,5'-Pentachlorobiphenyl		U		3.71	1	04/15/09 20:00
114	2,3,4,4',5-Pentachlorobiphenyl		6.79		3.71	1	04/15/09 20:00
118	2,3',4,4',5-Pentachlorobiphenyl		41.2	B	3.71	1	04/15/09 20:00
120	2,3',4,5,5'-Pentachlorobiphenyl		U		3.71	1	04/15/09 20:00
121	2,3',4,5',6-Pentachlorobiphenyl		U		3.71	1	04/15/09 20:00
122	2,3,3',4',5'-Pentachlorobiphenyl		U		3.71	1	04/15/09 20:00
123	2,3',4,4',5'-Pentachlorobiphenyl		6.50		3.71	1	04/15/09 20:00
126	3,3',4,4',5-Pentachlorobiphenyl		11.6		3.71	1	04/15/09 20:00
127	3,3',4,5,5'-Pentachlorobiphenyl		U		3.71	1	04/15/09 20:00
128/166	2,2',3,3',4,4'-HxCB/2,3,4,4',5,6-HxCB		15.2	B	3.71	1	04/15/09 20:00
129/138/163	HxCB-129/138/163		107		3.71	1	04/15/09 20:00
130	2,2',3,3',4,5'-Hexachlorobiphenyl		5.61		3.71	1	04/15/09 20:00
131	2,2',3,3',4,6-Hexachlorobiphenyl		U		3.71	1	04/15/09 20:00
132	2,2',3,3',4,6'-Hexachlorobiphenyl		21.5	B	3.71	1	04/15/09 20:00
133	2,2',3,3',5,5'-Hexachlorobiphenyl		U		3.71	1	04/15/09 20:00
134/143	2,2',3,3',5,6-HxCB/2,2',3,4,5,6'-HxCB		3.82		3.71	1	04/15/09 20:00
135/151	2,2',3,3',5,6'-HxCB/2,2',3,5,5',6-HxCB		25.8	B	3.71	1	04/15/09 20:00
136	2,2',3,3',6,6'-Hexachlorobiphenyl		11.5	B	3.71	1	04/15/09 20:00
137	2,2',3,4,4',5-Hexachlorobiphenyl		3.37	J	3.71	1	04/15/09 20:00
139/140	2,2',3,4,4',6-HxCB/2,2',3,4,4',6-HxCB		U		3.71	1	04/15/09 20:00
141	2,2',3,4,5,5'-Hexachlorobiphenyl		17.8	B	3.71	1	04/15/09 20:00
142	2,2',3,4,5,6-Hexachlorobiphenyl		U		3.71	1	04/15/09 20:00
144	2,2',3,4,5',6-Hexachlorobiphenyl		3.79		3.71	1	04/15/09 20:00
145	2,2',3,4,6,6'-Hexachlorobiphenyl		U		3.71	1	04/15/09 20:00
146	2,2',3,4',5,5'-Hexachlorobiphenyl		15.4	B	3.71	1	04/15/09 20:00
147/149	2,2',3,4',5,6-HxCB/2,2',3,4',5',6-HxCB		61.6	B	3.71	1	04/15/09 20:00
148	2,2',3,4',5,6'-Hexachlorobiphenyl		U		3.71	1	04/15/09 20:00
150	2,2',3,4',6,6'-Hexachlorobiphenyl		U		3.71	1	04/15/09 20:00
152	2,2',3,5,6,6'-Hexachlorobiphenyl		U		3.71	1	04/15/09 20:00
153/168	2,2',4,4',5,5'-HxCB/2,3',4,4',5',6-HxCB		100		3.71	1	04/15/09 20:00
154	2,2',4,4',5,6'-Hexachlorobiphenyl		U		3.71	1	04/15/09 20:00



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northeast

Lab ID: 0904005-05

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.60	Sample Wet Weight: 5.52g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
155	2,2',4,4',6,6'-Hexachlorobiphenyl	U		3.71	1	04/15/09 20:00
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5'-HxCB	38.6	B	3.71	1	04/15/09 20:00
158	2,3,3',4,4',6-Hexachlorobiphenyl	10.7		3.71	1	04/15/09 20:00
159	2,3,3',4,5,5'-Hexachlorobiphenyl	2.49	EMPC, J	3.71	1	04/15/09 20:00
160	2,3,3',4,5,6-Hexachlorobiphenyl	U		3.71	1	04/15/09 20:00
161	2,3,3',4,5',6-Hexachlorobiphenyl	U		3.71	1	04/15/09 20:00
162	2,3,3',4',5,5'-Hexachlorobiphenyl	3.24	B, J	3.71	1	04/15/09 20:00
164	2,3,3',4',5',6-Hexachlorobiphenyl	10.5		3.71	1	04/15/09 20:00
165	2,3,3',5,5',6-Hexachlorobiphenyl	U		3.71	1	04/15/09 20:00
167	2,3',4,4',5,5'-Hexachlorobiphenyl	18.2	B	3.71	1	04/15/09 20:00
169	3,3',4,4',5,5'-Hexachlorobiphenyl	14.8	B	3.71	1	04/15/09 20:00
170	2,2',3,3',4,4',5-Heptachlorobiphenyl	45.3	B	3.71	1	04/15/09 20:00
171/173	2,2',3,3',4,4',6-HpCB/2,2',3,3',4,5,6-HpCB	12.8		3.71	1	04/15/09 20:00
172	2,2',3,3',4,5,5'-Heptachlorobiphenyl	9.28		3.71	1	04/15/09 20:00
174	2,2',3,3',4,5,6'-Heptachlorobiphenyl	47.5	B	3.71	1	04/15/09 20:00
175	2,2',3,3',4,5',6-Heptachlorobiphenyl	U		3.71	1	04/15/09 20:00
176	2,2',3,3',4,6,6'-Heptachlorobiphenyl	5.90		3.71	1	04/15/09 20:00
177	2,2',3,3',4,5,6'-Heptachlorobiphenyl	26.5		3.71	1	04/15/09 20:00
178	2,2',3,3',5,5',6-Heptachlorobiphenyl	10.1		3.71	1	04/15/09 20:00
179	2,2',3,3',5,6,6'-Heptachlorobiphenyl	20.2	B	3.71	1	04/15/09 20:00
180/193	2,2',3,4,4',5,5'-HpCB/2,3,3',4',5,5',6-HpCB	126		3.71	1	04/15/09 20:00
181	2,2',3,4,4',5,6-Heptachlorobiphenyl	U		3.71	1	04/15/09 20:00
182	2,2',3,4,4',5,6'-Heptachlorobiphenyl	U		3.71	1	04/15/09 20:00
183/185	2,2',3,4,4',5',6-HpCB/2,2',3,4,5,5',6-HpCB	28.1		3.71	1	04/15/09 20:00
184	2,2',3,4,4',6,6'-Heptachlorobiphenyl	U		3.71	1	04/15/09 20:00
186	2,2',3,4,5,6,6'-Heptachlorobiphenyl	U		3.71	1	04/15/09 20:00
187	2,2',3,4',5,5',6-Heptachlorobiphenyl	57.5		3.71	1	04/15/09 20:00
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl	6.13		3.71	1	04/15/09 20:00
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl	16.5	B	3.71	1	04/15/09 20:00
190	2,3,3',4,4',5,6-Heptachlorobiphenyl	13.7		3.71	1	04/15/09 20:00
191	2,3,3',4,4',5',6-Heptachlorobiphenyl	3.50	J	3.71	1	04/15/09 20:00
192	2,3,3',4,5,5',6-Heptachlorobiphenyl	U		3.71	1	04/15/09 20:00
194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl	23.5	B	3.71	1	04/15/09 20:00
195	2,2',3,3',4,4',5,6-Octachlorobiphenyl	10.4		3.71	1	04/15/09 20:00
196	2,2',3,3',4,4',5,6'-Octachlorobiphenyl	15.6	B	3.71	1	04/15/09 20:00
197/200	2,2',3,3',4,4',6,6'-OcCB/2,2',3,3',4,5,6,6'-OcCB	8.58	B	3.71	1	04/15/09 20:00
198/199	2,2',3,3',4,5,5',6-OcCB/2,2',3,3',4,5,5',6'-OcCB	35.5		3.71	1	04/15/09 20:00
201	2,2',3,3',4,5',6,6'-Octachlorobiphenyl	5.68	B	3.71	1	04/15/09 20:00



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northeast

Lab ID: 0904005-05

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.60	Sample Wet Weight: 5.52g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	15.6		3.71	1	04/15/09 20:00
203	2,2',3,4,4',5,5',6-Octachlorobiphenyl	23.1		3.71	1	04/15/09 20:00
204	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	U		3.71	1	04/15/09 20:00
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	17.6		3.71	1	04/15/09 20:00
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	28.5		3.71	1	04/15/09 20:00
207	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	3.82	B	3.71	1	04/15/09 20:00
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	18.0		3.71	1	04/15/09 20:00
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	24.6		3.71	1	04/15/09 20:00
1-3	Total Monochlorobiphenyl	3.80		3.71	1	04/15/09 20:00
4-15	Total Dichlorobiphenyl	47.9	B	3.71	1	04/15/09 20:00
16-39	Total Trichlorobiphenyl	60.1	B	3.71	1	04/15/09 20:00
40-81	Total Tetrachlorobiphenyl	130	B	3.71	1	04/15/09 20:00
82-127	Total Pentachlorobiphenyl	293	B	3.71	1	04/15/09 20:00
128-169	Total Hexachlorobiphenyl	490	B	3.71	1	04/15/09 20:00
170-193	Total Heptachlorobiphenyl	429	B	3.71	1	04/15/09 20:00
194-205	Total Octachlorobiphenyl	156		3.71	1	04/15/09 20:00
206-208	Total Nonachlorobiphenyl	50.5		3.71	1	04/15/09 20:00
209	Decachlorobiphenyl	24.6		3.71	1	04/15/09 20:00

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1L	<i>Surrogate: 13C12-2-Monochlorobiphenyl</i>	15.9		16 %	15-150	04/15/09 20:00
3L	<i>Surrogate: 13C12-4-Monochlorobiphenyl</i>	20.3		20 %	15-150	04/15/09 20:00
4L	<i>Surrogate: 13C12-2,2'-Dichlorobiphenyl</i>	20.3	A	20 %	25-150	04/15/09 20:00
15L	<i>Surrogate: 13C12-4,4'-Dichlorobiphenyl</i>	40.4		40 %	25-150	04/15/09 20:00
19L	<i>Surrogate: 13C12-2,2',6-Trichlorobiphenyl</i>	26.0		26 %	25-150	04/15/09 20:00
37L	<i>Surrogate: 13C12-3,4,4'-Trichlorobiphenyl</i>	42.4		42 %	25-150	04/15/09 20:00
54L	<i>Surrogate: 13C12-2,2',6,6'-Tetrachlorobiphenyl</i>	27.3		27 %	25-150	04/15/09 20:00
77L	<i>Surrogate: 13C12-3,3',4,4'-Tetrachlorobiphenyl</i>	37.9		38 %	25-150	04/15/09 20:00
81L	<i>Surrogate: 13C12-3,4,4',5-Tetrachlorobiphenyl</i>	35.4		35 %	25-150	04/15/09 20:00
104L	<i>Surrogate: 13C12-2,2',4,6,6'-Pentachlorobiphenyl</i>	28.2		28 %	25-150	04/15/09 20:00
105L	<i>Surrogate: 13C12-2,3,3',4,4'-Pentachlorobiphenyl</i>	35.2		35 %	25-150	04/15/09 20:00
114 L	<i>Surrogate: 13C12-2,3,4,4',5-Pentachlorobiphenyl</i>	30.8		31 %	25-150	04/15/09 20:00
118 L	<i>Surrogate: 13C12-2,3',4,4',5-Pentachlorobiphenyl</i>	32.7		33 %	25-150	04/15/09 20:00



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northeast

Lab ID: 0904005-05

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
123L	Surrogate: 13C12-2',3,4,4',5-Pentachlorobiphenyl	33.5		34 %	25-150	04/15/09 20:00
126L	Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl	35.2		35 %	25-150	04/15/09 20:00
155L	Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl	26.8		27 %	25-150	04/15/09 20:00
156L/157L	Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB	62.9		31 %	25-150	04/15/09 20:00
167L	Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl	31.4		31 %	25-150	04/15/09 20:00
169L	Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl	37.2		37 %	25-150	04/15/09 20:00
188L	Surrogate: 13C12-2,2',3,4',5,6,6'-Heptachlorobiphenyl	43.3		43 %	25-150	04/15/09 20:00
189L	Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl	36.5		36 %	25-150	04/15/09 20:00
202L	Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl	41.4		41 %	25-150	04/15/09 20:00
205L	Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl	25.9		26 %	25-150	04/15/09 20:00
206L	Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	25.6		26 %	25-150	04/15/09 20:00
208L	Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	23.1	A	23 %	25-150	04/15/09 20:00
209L	Surrogate: 13C12-Decachlorobiphenyl	24.3	A	24 %	25-150	04/15/09 20:00
28L	Surrogate: 13C12-2,4,4'-Trichlorobiphenyl	52.4		52 %	30-135	04/15/09 20:00
111 L	Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl	45.7		46 %	30-135	04/15/09 20:00
178L	Surrogate: 13C12-2,2',3,3',5,5',6-Heptachlorobiphenyl	41.4		41 %	30-135	04/15/09 20:00



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: North

Lab ID: 0904005-06

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets

Batch:	BI71205	Sample Weight:	%Solids: 98.00	Sample Wet Weight: 6.75g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1	2-Monochlorobiphenyl	0.735	J	3.02	1	04/16/09 00:26
2	3-Monochlorobiphenyl	0.587	J	3.02	1	04/16/09 00:26
3	4-Monochlorobiphenyl	0.964	J	3.02	1	04/16/09 00:26
4	2,2'-Dichlorobiphenyl	U		3.02	1	04/16/09 00:26
5	2,3-Dichlorobiphenyl	U		3.02	1	04/16/09 00:26
6	2,3'-Dichlorobiphenyl	2.19	EMPC, J	3.02	1	04/16/09 00:26
7	2,4-Dichlorobiphenyl	5.47		3.02	1	04/16/09 00:26
8	2,4'-Dichlorobiphenyl	U		3.02	1	04/16/09 00:26
9	2,5-Dichlorobiphenyl	1.30	EMPC, J	3.02	1	04/16/09 00:26
10	2,6-Dichlorobiphenyl	U		3.02	1	04/16/09 00:26
11	3,3'-Dichlorobiphenyl	26.2	B	3.02	1	04/16/09 00:26
12/13	3,4-DiCB/3,4'-DiCB	U		3.02	1	04/16/09 00:26
14	3,5-Dichlorobiphenyl	U		3.02	1	04/16/09 00:26
15	4,4'-Dichlorobiphenyl	4.47	B	3.02	1	04/16/09 00:26
16/24	2,2',3-TrCB/2,3,6-TrCB	1.56	B, J	3.02	1	04/16/09 00:26
17	2,2',4-Trichlorobiphenyl	1.27	B, J	3.02	1	04/16/09 00:26
18/30	2,2',5-TrCB/2,4,6-TrCB	3.39	B	3.02	1	04/16/09 00:26
19	2,2',6-Trichlorobiphenyl	U		3.02	1	04/16/09 00:26
20/28	2,3,3'-TrCB/2,4,4'-TrCB	6.80	B	3.02	1	04/16/09 00:26
21/33	2,3,4-TrCB/2,3',4'-TrCB	4.72	B	3.02	1	04/16/09 00:26
22	2,3,4'-Trichlorobiphenyl	3.57	B	3.02	1	04/16/09 00:26
23	2,3,5-Trichlorobiphenyl	U		3.02	1	04/16/09 00:26
25	2,3',4-Trichlorobiphenyl	U		3.02	1	04/16/09 00:26
26/29	2,3',5-TrCB/2,4,5-TrCB	1.78	B, J	3.02	1	04/16/09 00:26
27	2,3',6-Trichlorobiphenyl	U		3.02	1	04/16/09 00:26
31	2,4',5-Trichlorobiphenyl	9.37	B	3.02	1	04/16/09 00:26
32	2,4',6-Trichlorobiphenyl	1.32	B, J	3.02	1	04/16/09 00:26
34	2,3',5'-Trichlorobiphenyl	U		3.02	1	04/16/09 00:26
35	3,3',4-Trichlorobiphenyl	1.21	B, J	3.02	1	04/16/09 00:26
36	3,3',5-Trichlorobiphenyl	U		3.02	1	04/16/09 00:26
37	3,4,4'-Trichlorobiphenyl	3.20	B	3.02	1	04/16/09 00:26
38	3,4,5-Trichlorobiphenyl	U		3.02	1	04/16/09 00:26
39	3,4',5-Trichlorobiphenyl	U		3.02	1	04/16/09 00:26
40/41/71	2,2',3,3'-TeCB/2,2',3,4-TeCB/2,3',4',6-TeCB	2.94	B, J	3.02	1	04/16/09 00:26
42	2,2',3,4'-Tetrachlorobiphenyl	1.25	B, J	3.02	1	04/16/09 00:26
43/73	2,2',3,5-TeCB/2,3',5',6-TeCB	U		3.02	1	04/16/09 00:26
44/47/65	2,2',3,5'-TeCB/2,2',4,4'-TeCB/2,3,5,6-TeCB	11.1	B	3.02	1	04/16/09 00:26
45/51	2,2',3,6-TeCB/2,2',4,6'-TeCB	1.27	B, J	3.02	1	04/16/09 00:26



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: North

Lab ID: 0904005-06

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 98.00	Sample Wet Weight: 6.75g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
46	2,2',3,6'-Tetrachlorobiphenyl	0.369	J	3.02	1	04/16/09 00:26
48	2,2',4,5'-Tetrachlorobiphenyl	0.889	J	3.02	1	04/16/09 00:26
49/69	2,2',4,5'-TeCB/2,3',4,6-TeCB	3.90	B	3.02	1	04/16/09 00:26
50/53	2,2',4,6-TeCB/2,2',5,6'-TeCB	0.795	J	3.02	1	04/16/09 00:26
52	2,2',5,5'-Tetrachlorobiphenyl	8.10	B	3.02	1	04/16/09 00:26
54	2,2',6,6'-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
55	2,3,3',4-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
56	2,3,3',4'-Tetrachlorobiphenyl	5.77	B	3.02	1	04/16/09 00:26
57	2,3,3',5-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
58	2,3,3',5'-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
59/62/75	2,3,3',6-TeCB/2,3,4,6-TeCB/2,4,4',6-TeCB	U		3.02	1	04/16/09 00:26
60	2,3,4,4'-Tetrachlorobiphenyl	1.71	B, J	3.02	1	04/16/09 00:26
61/70/74/76	TeCB-61/70/74/76	16.5	B	3.02	1	04/16/09 00:26
63	2,3,4',5-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
64	2,3,4',6-Tetrachlorobiphenyl	2.98	EMPC, B, J	3.02	1	04/16/09 00:26
66	2,3',4,4'-Tetrachlorobiphenyl	7.77	B	3.02	1	04/16/09 00:26
67	2,3',4,5-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
68	2,3',4,5'-Tetrachlorobiphenyl	1.78	J	3.02	1	04/16/09 00:26
72	2,3',5,5'-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
77	3,3',4,4'-Tetrachlorobiphenyl	5.08	B	3.02	1	04/16/09 00:26
78	3,3',4,5-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
79	3,3',4,5'-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
80	3,3',5,5'-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
81	3,4,4',5-Tetrachlorobiphenyl	U		3.02	1	04/16/09 00:26
82	2,2',3,3',4-Pentachlorobiphenyl	2.60	B, J	3.02	1	04/16/09 00:26
83/99/112	2,2',3,3',5-PeCB/2,2',4,4',5-PeCB/2,3,3',5,6-PeCB	11.9	B	3.02	1	04/16/09 00:26
84	2,2',3,3',6-Pentachlorobiphenyl	4.60		3.02	1	04/16/09 00:26
85/116/117	2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	6.29	B	3.02	1	04/16/09 00:26
86/87/97/109/119/125	PeCB-86/87/97/109/119/125	17.4		3.02	1	04/16/09 00:26
88/91	2,2',3,4,6-PeCB/2,2',3,4',6-PeCB	2.59	J	3.02	1	04/16/09 00:26
89	2,2',3,4,6'-Pentachlorobiphenyl	U		3.02	1	04/16/09 00:26
90/101/113	2,2',3,4',5-PeCB/2,2',4,5,5'-PeCB/2,3,3',5',6-PeCB	25.9	B	3.02	1	04/16/09 00:26
92	2,2',3,5,5'-Pentachlorobiphenyl	4.75		3.02	1	04/16/09 00:26
93/100	2,2',3,5,6-PeCB/2,2',4,4',6-PeCB	U		3.02	1	04/16/09 00:26
94	2,2',3,5,6'-Pentachlorobiphenyl	U		3.02	1	04/16/09 00:26
95	2,2',3,5',6-Pentachlorobiphenyl	16.4	B	3.02	1	04/16/09 00:26
96	2,2',3,6,6'-Pentachlorobiphenyl	0.268	J	3.02	1	04/16/09 00:26
98/102	2,2',3,4,6'-PeCB/2,2',4,5,6'-PeCB	U		3.02	1	04/16/09 00:26



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: North

Lab ID: 0904005-06

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 98.00	Sample Wet Weight: 6.75g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
103	2,2',4,5',6-Pentachlorobiphenyl		U		3.02	1	04/16/09 00:26
104	2,2',4,6,6'-Pentachlorobiphenyl		U		3.02	1	04/16/09 00:26
105	2,3,3',4,4'-Pentachlorobiphenyl		37.8	EMPC, B	3.02	1	04/16/09 00:26
106	2,3,3',4,5-Pentachlorobiphenyl		U		3.02	1	04/16/09 00:26
107	2,3,3',4',5-Pentachlorobiphenyl		3.30		3.02	1	04/16/09 00:26
108/124	2,3,3',4,5'-PeCB/2,3',4',5,5'-PeCB		2.14	J	3.02	1	04/16/09 00:26
110/115	2,3,3',4',6-PeCB/2,3,4,4',6-PeCB		31.7	B	3.02	1	04/16/09 00:26
111	2,3,3',5,5'-Pentachlorobiphenyl		U		3.02	1	04/16/09 00:26
114	2,3,4,4',5-Pentachlorobiphenyl		1.54	J	3.02	1	04/16/09 00:26
118	2,3',4,4',5-Pentachlorobiphenyl		28.5	B	3.02	1	04/16/09 00:26
120	2,3',4,5,5'-Pentachlorobiphenyl		U		3.02	1	04/16/09 00:26
121	2,3',4,5',6-Pentachlorobiphenyl		U		3.02	1	04/16/09 00:26
122	2,3,3',4',5'-Pentachlorobiphenyl		1.20	J	3.02	1	04/16/09 00:26
123	2,3',4,4',5'-Pentachlorobiphenyl		1.18	J	3.02	1	04/16/09 00:26
126	3,3',4,4',5-Pentachlorobiphenyl		2.24	EMPC, J	3.02	1	04/16/09 00:26
127	3,3',4,5,5'-Pentachlorobiphenyl		U		3.02	1	04/16/09 00:26
128/166	2,2',3,3',4,4'-HxCB/2,3,4,4',5,6-HxCB		8.80	B	3.02	1	04/16/09 00:26
129/138/163	HxCB-129/138/163		58.4	B	3.02	1	04/16/09 00:26
130	2,2',3,3',4,5'-Hexachlorobiphenyl		3.36		3.02	1	04/16/09 00:26
131	2,2',3,3',4,6-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
132	2,2',3,3',4,6'-Hexachlorobiphenyl		12.6	B	3.02	1	04/16/09 00:26
133	2,2',3,3',5,5'-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
134/143	2,2',3,3',5,6-HxCB/2,2',3,4,5,6'-HxCB		1.19	J	3.02	1	04/16/09 00:26
135/151	2,2',3,3',5,6'-HxCB/2,2',3,5,5',6-HxCB		15.5	B	3.02	1	04/16/09 00:26
136	2,2',3,3',6,6'-Hexachlorobiphenyl		6.38	B	3.02	1	04/16/09 00:26
137	2,2',3,4,4',5-Hexachlorobiphenyl		2.10	J	3.02	1	04/16/09 00:26
139/140	2,2',3,4,4',6-HxCB/2,2',3,4,4',6-HxCB		U		3.02	1	04/16/09 00:26
141	2,2',3,4,5,5'-Hexachlorobiphenyl		9.58	B	3.02	1	04/16/09 00:26
142	2,2',3,4,5,6-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
144	2,2',3,4,5',6-Hexachlorobiphenyl		2.04	J	3.02	1	04/16/09 00:26
145	2,2',3,4,6,6'-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
146	2,2',3,4',5,5'-Hexachlorobiphenyl		8.83	B	3.02	1	04/16/09 00:26
147/149	2,2',3,4',5,6-HxCB/2,2',3,4',5,6-HxCB		37.8	B	3.02	1	04/16/09 00:26
148	2,2',3,4',5,6'-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
150	2,2',3,4',6,6'-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
152	2,2',3,5,6,6'-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
153/168	2,2',4,4',5,5'-HxCB/2,3',4,4',5',6-HxCB		54.1	B	3.02	1	04/16/09 00:26
154	2,2',4,4',5,6'-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: North

Lab ID: 0904005-06

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 98.00	Sample Wet Weight: 6.75g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
155	2,2',4,4',6,6'-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5'-HxCB		11.2	B	3.02	1	04/16/09 00:26
158	2,3,3',4,4',6-Hexachlorobiphenyl		5.84		3.02	1	04/16/09 00:26
159	2,3,3',4,5,5'-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
160	2,3,3',4,5,6-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
161	2,3,3',4,5',6-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
162	2,3,3',4',5,5'-Hexachlorobiphenyl		7.98	EMPC, B	3.02	1	04/16/09 00:26
164	2,3,3',4',5',6-Hexachlorobiphenyl		5.44		3.02	1	04/16/09 00:26
165	2,3,3',5,5',6-Hexachlorobiphenyl		U		3.02	1	04/16/09 00:26
167	2,3',4,4',5,5'-Hexachlorobiphenyl		5.44	B	3.02	1	04/16/09 00:26
169	3,3',4,4',5,5'-Hexachlorobiphenyl		1.67	B, J	3.02	1	04/16/09 00:26
170	2,2',3,3',4,4',5-Heptachlorobiphenyl		33.0	B	3.02	1	04/16/09 00:26
171/173	2,2',3,3',4,4',6-HpCB/2,2',3,3',4,5,6-HpCB		6.59		3.02	1	04/16/09 00:26
172	2,2',3,3',4,5,5'-Heptachlorobiphenyl		5.56		3.02	1	04/16/09 00:26
174	2,2',3,3',4,5,6'-Heptachlorobiphenyl		33.0	B	3.02	1	04/16/09 00:26
175	2,2',3,3',4,5',6-Heptachlorobiphenyl		U		3.02	1	04/16/09 00:26
176	2,2',3,3',4,6,6'-Heptachlorobiphenyl		4.08		3.02	1	04/16/09 00:26
177	2,2',3,3',4,5,6'-Heptachlorobiphenyl		15.7		3.02	1	04/16/09 00:26
178	2,2',3,3',5,5',6-Heptachlorobiphenyl		6.68		3.02	1	04/16/09 00:26
179	2,2',3,3',5,6,6'-Heptachlorobiphenyl		15.4	B	3.02	1	04/16/09 00:26
180/193	2,2',3,4,4',5,5'-HpCB/2,3,3',4',5,5',6-HpCB		83.4		3.02	1	04/16/09 00:26
181	2,2',3,4,4',5,6-Heptachlorobiphenyl		U		3.02	1	04/16/09 00:26
182	2,2',3,4,4',5,6'-Heptachlorobiphenyl		U		3.02	1	04/16/09 00:26
183/185	2,2',3,4,4',5',6-HpCB/2,2',3,4,5,5',6-HpCB		20.8		3.02	1	04/16/09 00:26
184	2,2',3,4,4',6,6'-Heptachlorobiphenyl		U		3.02	1	04/16/09 00:26
186	2,2',3,4,5,6,6'-Heptachlorobiphenyl		U		3.02	1	04/16/09 00:26
187	2,2',3,4',5,5',6-Heptachlorobiphenyl		46.0		3.02	1	04/16/09 00:26
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl		U		3.02	1	04/16/09 00:26
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl		2.62	B, J	3.02	1	04/16/09 00:26
190	2,3,3',4,4',5,6-Heptachlorobiphenyl		6.59		3.02	1	04/16/09 00:26
191	2,3,3',4,4',5',6-Heptachlorobiphenyl		1.73	J	3.02	1	04/16/09 00:26
192	2,3,3',4,5,5',6-Heptachlorobiphenyl		U		3.02	1	04/16/09 00:26
194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl		21.7	B	3.02	1	04/16/09 00:26
195	2,2',3,3',4,4',5,6-Octachlorobiphenyl		5.99		3.02	1	04/16/09 00:26
196	2,2',3,3',4,4',5,6'-Octachlorobiphenyl		15.4	B	3.02	1	04/16/09 00:26
197/200	2,2',3,3',4,4',6,6'-OcCB/2,2',3,3',4,5,6,6'-OcCB		7.01	B	3.02	1	04/16/09 00:26
198/199	2,2',3,3',4,5,5',6-OcCB/2,2',3,3',4,5,5',6'-OcCB		37.2		3.02	1	04/16/09 00:26
201	2,2',3,3',4,5',6,6'-Octachlorobiphenyl		6.32	B	3.02	1	04/16/09 00:26



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: North

Lab ID: 0904005-06

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 98.00	Sample Wet Weight: 6.75g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	9.80		3.02	1	04/16/09 00:26
203	2,2',3,4,4',5,5',6-Octachlorobiphenyl	26.7		3.02	1	04/16/09 00:26
204	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	U		3.02	1	04/16/09 00:26
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	3.08		3.02	1	04/16/09 00:26
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	27.3		3.02	1	04/16/09 00:26
207	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	9.37		3.02	1	04/16/09 00:26
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	10.9		3.02	1	04/16/09 00:26
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	71.4		3.02	1	04/16/09 00:26
1-3	Total Monochlorobiphenyl	2.29	J	3.02	1	04/16/09 00:26
4-15	Total Dichlorobiphenyl	40.9	B	3.02	1	04/16/09 00:26
16-39	Total Trichlorobiphenyl	38.2	B	3.02	1	04/16/09 00:26
40-81	Total Tetrachlorobiphenyl	72.3	B	3.02	1	04/16/09 00:26
82-127	Total Pentachlorobiphenyl	202	B	3.02	1	04/16/09 00:26
128-169	Total Hexachlorobiphenyl	258	B	3.02	1	04/16/09 00:26
170-193	Total Heptachlorobiphenyl	281	B	3.02	1	04/16/09 00:26
194-205	Total Octachlorobiphenyl	133	B	3.02	1	04/16/09 00:26
206-208	Total Nonachlorobiphenyl	47.6		3.02	1	04/16/09 00:26
209	Decachlorobiphenyl	71.4		3.02	1	04/16/09 00:26

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1L	Surrogate: 13C12-2-Monochlorobiphenyl	32.1		32 %	15-150	04/16/09 00:26
3L	Surrogate: 13C12-4-Monochlorobiphenyl	38.5		38 %	15-150	04/16/09 00:26
4L	Surrogate: 13C12-2,2'-Dichlorobiphenyl	39.0		39 %	25-150	04/16/09 00:26
15L	Surrogate: 13C12-4,4'-Dichlorobiphenyl	72.6		73 %	25-150	04/16/09 00:26
19L	Surrogate: 13C12-2,2',6-Trichlorobiphenyl	49.1		49 %	25-150	04/16/09 00:26
37L	Surrogate: 13C12-3,4,4'-Trichlorobiphenyl	73.5		74 %	25-150	04/16/09 00:26
54L	Surrogate: 13C12-2,2',6,6'-Tetrachlorobiphenyl	53.1		53 %	25-150	04/16/09 00:26
77L	Surrogate: 13C12-3,3',4,4'-Tetrachlorobiphenyl	68.3		68 %	25-150	04/16/09 00:26
81L	Surrogate: 13C12-3,4,4',5-Tetrachlorobiphenyl	65.8		66 %	25-150	04/16/09 00:26
104L	Surrogate: 13C12-2,2',4,6,6'-Pentachlorobiphenyl	56.2		56 %	25-150	04/16/09 00:26
105L	Surrogate: 13C12-2,3,3',4,4'-Pentachlorobiphenyl	59.0		59 %	25-150	04/16/09 00:26
114 L	Surrogate: 13C12-2,3,4,4',5-Pentachlorobiphenyl	54.6		55 %	25-150	04/16/09 00:26
118 L	Surrogate: 13C12-2,3',4,4',5-Pentachlorobiphenyl	58.2		58 %	25-150	04/16/09 00:26



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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: North

Lab ID: 0904005-06

Sample Matrix: Solid

Date Collected: 03/31/2009

PCB Congeners

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
123L	Surrogate: 13C12-2',3,4,4',5-Pentachlorobiphenyl	59.1		59 %	25-150	04/16/09 00:26
126L	Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl	62.2		62 %	25-150	04/16/09 00:26
155L	Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl	51.9		52 %	25-150	04/16/09 00:26
156L/157L	Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB	115		58 %	25-150	04/16/09 00:26
167L	Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl	57.7		58 %	25-150	04/16/09 00:26
169L	Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl	72.7		73 %	25-150	04/16/09 00:26
188L	Surrogate: 13C12-2,2',3,4',5,6,6'-Heptachlorobiphenyl	76.4		76 %	25-150	04/16/09 00:26
189L	Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl	64.7		65 %	25-150	04/16/09 00:26
202L	Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl	76.5		76 %	25-150	04/16/09 00:26
205L	Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl	46.9		47 %	25-150	04/16/09 00:26
206L	Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	45.3		45 %	25-150	04/16/09 00:26
208L	Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	42.3		42 %	25-150	04/16/09 00:26
209L	Surrogate: 13C12-Decachlorobiphenyl	45.3		45 %	25-150	04/16/09 00:26
28L	Surrogate: 13C12-2,4,4'-Trichlorobiphenyl	86.5		86 %	30-135	04/16/09 00:26
111 L	Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl	73.6		74 %	30-135	04/16/09 00:26
178L	Surrogate: 13C12-2,2',3,3',5,5',6-Heptachlorobiphenyl	72.8		73 %	30-135	04/16/09 00:26



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northwest

Lab ID: 0904005-07

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets

Batch:	BI71205	Sample Weight:	%Solids: 97.40	Sample Wet Weight: 6.96g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1	2-Monochlorobiphenyl	U		2.95	1	04/16/09 01:31
2	3-Monochlorobiphenyl	U		2.95	1	04/16/09 01:31
3	4-Monochlorobiphenyl	U		2.95	1	04/16/09 01:31
4	2,2'-Dichlorobiphenyl	U		2.95	1	04/16/09 01:31
5	2,3-Dichlorobiphenyl	U		2.95	1	04/16/09 01:31
6	2,3'-Dichlorobiphenyl	U		2.95	1	04/16/09 01:31
7	2,4-Dichlorobiphenyl	U		2.95	1	04/16/09 01:31
8	2,4'-Dichlorobiphenyl	U		2.95	1	04/16/09 01:31
9	2,5-Dichlorobiphenyl	U		2.95	1	04/16/09 01:31
10	2,6-Dichlorobiphenyl	U		2.95	1	04/16/09 01:31
11	3,3'-Dichlorobiphenyl	24.4	B	2.95	1	04/16/09 01:31
12/13	3,4-DiCB/3,4'-DiCB	9.71	B	2.95	1	04/16/09 01:31
14	3,5-Dichlorobiphenyl	U		2.95	1	04/16/09 01:31
15	4,4'-Dichlorobiphenyl	9.15	B	2.95	1	04/16/09 01:31
16/24	2,2',3-TrCB/2,3,6-TrCB	6.61	B	2.95	1	04/16/09 01:31
17	2,2',4-Trichlorobiphenyl	U		2.95	1	04/16/09 01:31
18/30	2,2',5-TrCB/2,4,6-TrCB	8.05	B	2.95	1	04/16/09 01:31
19	2,2',6-Trichlorobiphenyl	U		2.95	1	04/16/09 01:31
20/28	2,3,3'-TrCB/2,4,4'-TrCB	15.1	B	2.95	1	04/16/09 01:31
21/33	2,3,4-TrCB/2,3',4'-TrCB	20.2	B	2.95	1	04/16/09 01:31
22	2,3,4'-Trichlorobiphenyl	11.0	B	2.95	1	04/16/09 01:31
23	2,3,5-Trichlorobiphenyl	U		2.95	1	04/16/09 01:31
25	2,3',4-Trichlorobiphenyl	U		2.95	1	04/16/09 01:31
26/29	2,3',5-TrCB/2,4,5-TrCB	6.64	B	2.95	1	04/16/09 01:31
27	2,3',6-Trichlorobiphenyl	U		2.95	1	04/16/09 01:31
31	2,4',5-Trichlorobiphenyl	30.4	B	2.95	1	04/16/09 01:31
32	2,4',6-Trichlorobiphenyl	2.73	B, EMPC, J	2.95	1	04/16/09 01:31
34	2,3',5'-Trichlorobiphenyl	U		2.95	1	04/16/09 01:31
35	3,3',4-Trichlorobiphenyl	4.69	B	2.95	1	04/16/09 01:31
36	3,3',5-Trichlorobiphenyl	U		2.95	1	04/16/09 01:31
37	3,4,4'-Trichlorobiphenyl	11.4	B	2.95	1	04/16/09 01:31
38	3,4,5-Trichlorobiphenyl	U		2.95	1	04/16/09 01:31
39	3,4',5-Trichlorobiphenyl	U		2.95	1	04/16/09 01:31
40/41/71	2,2',3,3'-TeCB/2,2',3,4'-TeCB/2,3',4',6-TeCB	7.17	B	2.95	1	04/16/09 01:31
42	2,2',3,4'-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
43/73	2,2',3,5-TeCB/2,3',5',6-TeCB	U		2.95	1	04/16/09 01:31
44/47/65	2,2',3,5'-TeCB/2,2',4,4'-TeCB/2,3,5,6-TeCB	13.8	B	2.95	1	04/16/09 01:31
45/51	2,2',3,6-TeCB/2,2',4,6'-TeCB	1.96	B, J	2.95	1	04/16/09 01:31



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northwest

Lab ID: 0904005-07

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.40	Sample Wet Weight: 6.96g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
46	2,2',3,6'-Tetrachlorobiphenyl	0.932	J	2.95	1	04/16/09 01:31
48	2,2',4,5-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
49/69	2,2',4,5'-TeCB/2,3',4,6-TeCB	4.99	B	2.95	1	04/16/09 01:31
50/53	2,2',4,6-TeCB/2,2',5,6'-TeCB	1.20	J	2.95	1	04/16/09 01:31
52	2,2',5,5'-Tetrachlorobiphenyl	7.46	B	2.95	1	04/16/09 01:31
54	2,2',6,6'-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
55	2,3,3',4-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
56	2,3,3',4'-Tetrachlorobiphenyl	17.1	B	2.95	1	04/16/09 01:31
57	2,3,3',5-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
58	2,3,3',5'-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
59/62/75	2,3,3',6-TeCB/2,3,4,6-TeCB/2,4,4',6-TeCB	U		2.95	1	04/16/09 01:31
60	2,3,4,4'-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
61/70/74/76	TeCB-61/70/74/76	26.9	B	2.95	1	04/16/09 01:31
63	2,3,4',5-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
64	2,3,4',6-Tetrachlorobiphenyl	3.54	B, EMPC	2.95	1	04/16/09 01:31
66	2,3',4,4'-Tetrachlorobiphenyl	12.3	B	2.95	1	04/16/09 01:31
67	2,3',4,5-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
68	2,3',4,5'-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
72	2,3',5,5'-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
77	3,3',4,4'-Tetrachlorobiphenyl	9.26	B	2.95	1	04/16/09 01:31
78	3,3',4,5-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
79	3,3',4,5'-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
80	3,3',5,5'-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
81	3,4,4',5-Tetrachlorobiphenyl	U		2.95	1	04/16/09 01:31
82	2,2',3,3',4-Pentachlorobiphenyl	4.81	B	2.95	1	04/16/09 01:31
83/99/112	2,2',3,3',5-PeCB/2,2',4,4',5-PeCB/2,3,3',5,6-PeCB	9.53	B	2.95	1	04/16/09 01:31
84	2,2',3,3',6-Pentachlorobiphenyl	4.90		2.95	1	04/16/09 01:31
85/116/117	2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	4.57	B	2.95	1	04/16/09 01:31
86/87/97/109/119/125	PeCB-86/87/97/109/119/125	16.5		2.95	1	04/16/09 01:31
88/91	2,2',3,4,6-PeCB/2,2',3,4',6-PeCB	3.25		2.95	1	04/16/09 01:31
89	2,2',3,4,6'-Pentachlorobiphenyl	U		2.95	1	04/16/09 01:31
90/101/113	2,2',3,4',5-PeCB/2,2',4,5,5'-PeCB/2,3,3',5',6-PeCB	18.1	B	2.95	1	04/16/09 01:31
92	2,2',3,5,5'-Pentachlorobiphenyl	4.16		2.95	1	04/16/09 01:31
93/100	2,2',3,5,6-PeCB/2,2',4,4',6-PeCB	U		2.95	1	04/16/09 01:31
94	2,2',3,5,6'-Pentachlorobiphenyl	U		2.95	1	04/16/09 01:31
95	2,2',3,5',6-Pentachlorobiphenyl	10.6	B	2.95	1	04/16/09 01:31
96	2,2',3,6,6'-Pentachlorobiphenyl	U		2.95	1	04/16/09 01:31
98/102	2,2',3,4',6'-PeCB/2,2',4,5,6'-PeCB	U		2.95	1	04/16/09 01:31



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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northwest

Lab ID: 0904005-07

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.40	Sample Wet Weight: 6.96g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
103	2,2',4,5',6-Pentachlorobiphenyl		U		2.95	1	04/16/09 01:31
104	2,2',4,6,6'-Pentachlorobiphenyl		U		2.95	1	04/16/09 01:31
105	2,3,3',4,4'-Pentachlorobiphenyl		72.3	B, EMPC	2.95	1	04/16/09 01:31
106	2,3,3',4,5-Pentachlorobiphenyl		U		2.95	1	04/16/09 01:31
107	2,3,3',4',5-Pentachlorobiphenyl		3.39	EMPC	2.95	1	04/16/09 01:31
108/124	2,3,3',4,5'-PeCB/2,3',4',5,5'-PeCB		U		2.95	1	04/16/09 01:31
110/115	2,3,3',4',6-PeCB/2,3,4,4',6-PeCB		22.2	B	2.95	1	04/16/09 01:31
111	2,3,3',5,5'-Pentachlorobiphenyl		U		2.95	1	04/16/09 01:31
114	2,3,4,4',5-Pentachlorobiphenyl		U		2.95	1	04/16/09 01:31
118	2,3',4,4',5-Pentachlorobiphenyl		20.1	B	2.95	1	04/16/09 01:31
120	2,3',4,5,5'-Pentachlorobiphenyl		U		2.95	1	04/16/09 01:31
121	2,3',4,5',6-Pentachlorobiphenyl		U		2.95	1	04/16/09 01:31
122	2,3,3',4',5'-Pentachlorobiphenyl		U		2.95	1	04/16/09 01:31
123	2,3',4,4',5'-Pentachlorobiphenyl		0.941	EMPC, J	2.95	1	04/16/09 01:31
126	3,3',4,4',5-Pentachlorobiphenyl		U		2.95	1	04/16/09 01:31
127	3,3',4,5,5'-Pentachlorobiphenyl		U		2.95	1	04/16/09 01:31
128/166	2,2',3,3',4,4'-HxCB/2,3,4,4',5,6-HxCB		5.37	B, EMPC	2.95	1	04/16/09 01:31
129/138/163	HxCB-129/138/163		31.6	B	2.95	1	04/16/09 01:31
130	2,2',3,3',4,5'-Hexachlorobiphenyl		2.75	EMPC, J	2.95	1	04/16/09 01:31
131	2,2',3,3',4,6-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
132	2,2',3,3',4,6'-Hexachlorobiphenyl		7.23	B	2.95	1	04/16/09 01:31
133	2,2',3,3',5,5'-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
134/143	2,2',3,3',5,6-HxCB/2,2',3,4,5,6'-HxCB		U		2.95	1	04/16/09 01:31
135/151	2,2',3,3',5,6'-HxCB/2,2',3,5,5',6-HxCB		7.70	B	2.95	1	04/16/09 01:31
136	2,2',3,3',6,6'-Hexachlorobiphenyl		4.78	B	2.95	1	04/16/09 01:31
137	2,2',3,4,4',5-Hexachlorobiphenyl		1.71	EMPC, J	2.95	1	04/16/09 01:31
139/140	2,2',3,4,4',6-HxCB/2,2',3,4,4',6-HxCB		U		2.95	1	04/16/09 01:31
141	2,2',3,4,5,5'-Hexachlorobiphenyl		4.51	B, EMPC	2.95	1	04/16/09 01:31
142	2,2',3,4,5,6-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
144	2,2',3,4,5',6-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
145	2,2',3,4,6,6'-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
146	2,2',3,4',5,5'-Hexachlorobiphenyl		6.25	B	2.95	1	04/16/09 01:31
147/149	2,2',3,4',5,6-HxCB/2,2',3,4',5,6-HxCB		19.9	B	2.95	1	04/16/09 01:31
148	2,2',3,4',5,6-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
150	2,2',3,4',6,6'-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
152	2,2',3,5,6,6'-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
153/168	2,2',4,4',5,5'-HxCB/2,3',4,4',5',6-HxCB		28.4	B	2.95	1	04/16/09 01:31
154	2,2',4,4',5,6'-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31



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Project #: NSF 470

Station ID: Northwest

Lab ID: 0904005-07

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.40	Sample Wet Weight: 6.96g	Method/SOP#:	EPA 1668a	
Congener Number:	Analyte		Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
155	2,2',4,4',6,6'-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5'-HxCB		5.28	B	2.95	1	04/16/09 01:31
158	2,3,3',4,4',6-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
159	2,3,3',4,5,5'-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
160	2,3,3',4,5,6-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
161	2,3,3',4,5',6-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
162	2,3,3',4',5,5'-Hexachlorobiphenyl		17.3	B, EMPC	2.95	1	04/16/09 01:31
164	2,3,3',4',5',6-Hexachlorobiphenyl		3.07		2.95	1	04/16/09 01:31
165	2,3,3',5,5',6-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
167	2,3',4,4',5,5'-Hexachlorobiphenyl		3.04	B	2.95	1	04/16/09 01:31
169	3,3',4,4',5,5'-Hexachlorobiphenyl		U		2.95	1	04/16/09 01:31
170	2,2',3,3',4,4',5-Heptachlorobiphenyl		30.1	B, EMPC	2.95	1	04/16/09 01:31
171/173	2,2',3,3',4,4',6-HpCB/2,2',3,3',4,5,6-HpCB		U		2.95	1	04/16/09 01:31
172	2,2',3,3',4,5,5'-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
174	2,2',3,3',4,5,6'-Heptachlorobiphenyl		16.6	B	2.95	1	04/16/09 01:31
175	2,2',3,3',4,5',6-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
176	2,2',3,3',4,6,6'-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
177	2,2',3,3',4,5',6'-Heptachlorobiphenyl		8.59		2.95	1	04/16/09 01:31
178	2,2',3,3',5,5',6-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
179	2,2',3,3',5,6,6'-Heptachlorobiphenyl		8.35	B	2.95	1	04/16/09 01:31
180/193	2,2',3,4,4',5,5'-HpCB/2,3,3',4',5,5',6-HpCB		38.6	B	2.95	1	04/16/09 01:31
181	2,2',3,4,4',5,6-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
182	2,2',3,4,4',5,6'-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
183/185	2,2',3,4,4',5',6-HpCB/2,2',3,4,5,5',6-HpCB		9.53		2.95	1	04/16/09 01:31
184	2,2',3,4,4',6,6'-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
186	2,2',3,4,5,6,6'-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
187	2,2',3,4',5,5',6-Heptachlorobiphenyl		20.9	B	2.95	1	04/16/09 01:31
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
190	2,3,3',4,4',5,6-Heptachlorobiphenyl		4.07		2.95	1	04/16/09 01:31
191	2,3,3',4,4',5',6-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
192	2,3,3',4,5,5',6-Heptachlorobiphenyl		U		2.95	1	04/16/09 01:31
194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl		8.23	B	2.95	1	04/16/09 01:31
195	2,2',3,3',4,4',5,6-Octachlorobiphenyl		U		2.95	1	04/16/09 01:31
196	2,2',3,3',4,4',5,6'-Octachlorobiphenyl		5.90	B, EMPC	2.95	1	04/16/09 01:31
197/200	2,2',3,3',4,4',6,6'-OcCB/2,2',3,3',4,5,6,6'-OcCB		U		2.95	1	04/16/09 01:31
198/199	2,2',3,3',4,5,5',6-OcCB/2,2',3,3',4,5,5',6'-OcCB		13.2	B	2.95	1	04/16/09 01:31
201	2,2',3,3',4,5',6,6'-Octachlorobiphenyl		U		2.95	1	04/16/09 01:31



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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northwest

Lab ID: 0904005-07

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Targets (Continued)

Batch:	BI71205	Sample Weight:	%Solids: 97.40	Sample Wet Weight: 6.96g	Method/SOP#:	EPA 1668a
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Congener Number:	Analyte	Result pg/g dry	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	3.54	B	2.95	1	04/16/09 01:31
203	2,2',3,4,4',5,5',6-Octachlorobiphenyl	9.29	B	2.95	1	04/16/09 01:31
204	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	U		2.95	1	04/16/09 01:31
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	U		2.95	1	04/16/09 01:31
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	6.96	B	2.95	1	04/16/09 01:31
207	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	U		2.95	1	04/16/09 01:31
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	2.63	B, J	2.95	1	04/16/09 01:31
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	5.02	B	2.95	1	04/16/09 01:31
1-3	Total Monochlorobiphenyl	U		2.95	1	04/16/09 01:31
4-15	Total Dichlorobiphenyl	43.2	B	2.95	1	04/16/09 01:31
16-39	Total Trichlorobiphenyl	117	B	2.95	1	04/16/09 01:31
40-81	Total Tetrachlorobiphenyl	107	B	2.95	1	04/16/09 01:31
82-127	Total Pentachlorobiphenyl	195	B	2.95	1	04/16/09 01:31
128-169	Total Hexachlorobiphenyl	149	B	2.95	1	04/16/09 01:31
170-193	Total Heptachlorobiphenyl	137	B	2.95	1	04/16/09 01:31
194-205	Total Octachlorobiphenyl	40.1	B	2.95	1	04/16/09 01:31
206-208	Total Nonachlorobiphenyl	9.62	B	2.95	1	04/16/09 01:31
209	Decachlorobiphenyl	5.02	B	2.95	1	04/16/09 01:31

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
1L	<i>Surrogate: 13C12-2-Monochlorobiphenyl</i>	4.08	A	4 %	15-150	04/16/09 01:31
3L	<i>Surrogate: 13C12-4-Monochlorobiphenyl</i>	5.32	A	5 %	15-150	04/16/09 01:31
4L	<i>Surrogate: 13C12-2,2'-Dichlorobiphenyl</i>	5.73	A	6 %	25-150	04/16/09 01:31
15L	<i>Surrogate: 13C12-4,4'-Dichlorobiphenyl</i>	13.5	A	14 %	25-150	04/16/09 01:31
19L	<i>Surrogate: 13C12-2,2',6-Trichlorobiphenyl</i>	8.15	A	8 %	25-150	04/16/09 01:31
37L	<i>Surrogate: 13C12-3,4,4'-Trichlorobiphenyl</i>	17.4	A	17 %	25-150	04/16/09 01:31
54L	<i>Surrogate: 13C12-2,2',6,6'-Tetrachlorobiphenyl</i>	9.25	A	9 %	25-150	04/16/09 01:31
77L	<i>Surrogate: 13C12-3,3',4,4'-Tetrachlorobiphenyl</i>	19.1	A	19 %	25-150	04/16/09 01:31
81L	<i>Surrogate: 13C12-3,4,4',5-Tetrachlorobiphenyl</i>	17.7	A	18 %	25-150	04/16/09 01:31
104L	<i>Surrogate: 13C12-2,2',4,6,6'-Pentachlorobiphenyl</i>	10.8	A	11 %	25-150	04/16/09 01:31
105L	<i>Surrogate: 13C12-2,3,3',4,4'-Pentachlorobiphenyl</i>	18.2	A	18 %	25-150	04/16/09 01:31
114 L	<i>Surrogate: 13C12-2,3,4,4',5-Pentachlorobiphenyl</i>	15.8	A	16 %	25-150	04/16/09 01:31
118 L	<i>Surrogate: 13C12-2,3',4,4',5-Pentachlorobiphenyl</i>	16.7	A	17 %	25-150	04/16/09 01:31

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Station ID: Northwest

Lab ID: 0904005-07

Sample Matrix: Solid

Date Collected: 04/01/2009

PCB Congeners

Surrogates

Congener Number:	Analyte	Result ng/mL	Flags Qualifiers	Quantitation Limit	Dilution Factor	Date Analyzed
123L	Surrogate: 13C12-2',3,4,4',5-Pentachlorobiphenyl	16.9	A	17 %	25-150	04/16/09 01:31
126L	Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl	20.5	A	20 %	25-150	04/16/09 01:31
155L	Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl	11.7	A	12 %	25-150	04/16/09 01:31
156L/157L	Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB	42.1	A	21 %	25-150	04/16/09 01:31
167L	Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl	19.6	A	20 %	25-150	04/16/09 01:31
169L	Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl	26.6		27 %	25-150	04/16/09 01:31
188L	Surrogate: 13C12-2,2',3,4',5,6,6'-Heptachlorobiphenyl	22.8	A	23 %	25-150	04/16/09 01:31
189L	Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl	24.9		25 %	25-150	04/16/09 01:31
202L	Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl	25.9		26 %	25-150	04/16/09 01:31
205L	Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl	18.4	A	18 %	25-150	04/16/09 01:31
206L	Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	17.8	A	18 %	25-150	04/16/09 01:31
208L	Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	15.5	A	16 %	25-150	04/16/09 01:31
209L	Surrogate: 13C12-Decachlorobiphenyl	17.8	A	18 %	25-150	04/16/09 01:31
28L	Surrogate: 13C12-2,4,4'-Trichlorobiphenyl	17.2	A	17 %	30-135	04/16/09 01:31
111 L	Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl	20.3	A	20 %	30-135	04/16/09 01:31
178L	Surrogate: 13C12-2,2',3,3',5,5',6-Heptachlorobiphenyl	24.7	A	25 %	30-135	04/16/09 01:31



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

**Site Name:** Kettleman Hills Waste Management Facility**Project #:** NSF 470**Station ID:** Southwest**Lab ID:** 0904005-01**Sample Matrix:** Solid**Date Collected:** 03/31/2009**Classical Chemistry Parameters****Targets**

Analyte	Result % by Weight	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
% Solids	97.3			1	04/02/09	04/10/09 16:12	USGS I-5753-85



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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701 Mapes Road
Fort Meade, Maryland 20755-5350

**Site Name:** Kettleman Hills Waste Management Facility**Project #:** NSF 470**Station ID:** South**Lab ID:** 0904005-02**Sample Matrix:** Solid**Date Collected:** 03/31/2009

Classical Chemistry Parameters

Targets

Analyte	Result % by Weight	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
% Solids	97.3			1	04/02/09	04/10/09 16:12	USGS I-5753-85



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Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
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**Site Name:** Kettleman Hills Waste Management Facility**Project #:** NSF 470**Station ID:** B-18**Lab ID:** 0904005-03**Sample Matrix:** Solid**Date Collected:** 04/01/2009**Classical Chemistry Parameters****Targets**

Analyte	Result % by Weight	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
% Solids	97.5			1	04/02/09	04/10/09 16:12	USGS I-5753-85



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

**Site Name:** Kettleman Hills Waste Management Facility**Project #:** NSF 470**Station ID:** B-99**Lab ID:** 0904005-04**Sample Matrix:** Solid**Date Collected:** 04/01/2009**Classical Chemistry Parameters****Targets**

Analyte	Result % by Weight	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
% Solids	97.5			1	04/02/09	04/10/09 16:12	USGS I-5753-85



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Office of Analytical Services and Quality Assurance
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Fort Meade, Maryland 20755-5350

**Site Name:** Kettleman Hills Waste Management Facility**Project #:** NSF 470**Station ID:** Northeast**Lab ID:** 0904005-05**Sample Matrix:** Solid**Date Collected:** 03/31/2009**Classical Chemistry Parameters****Targets**

Analyte	Result % by Weight	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
% Solids	97.6			1	04/02/09	04/10/09 16:12	USGS I-5753-85



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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**Site Name:** Kettleman Hills Waste Management Facility**Project #:** NSF 470**Station ID:** North**Lab ID:** 0904005-06**Sample Matrix:** Solid**Date Collected:** 03/31/2009**Classical Chemistry Parameters****Targets**

Analyte	Result % by Weight	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
% Solids	98.0			1	04/02/09	04/10/09 16:12	USGS I-5753-85



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**Site Name:** Kettleman Hills Waste Management Facility**Project #:** NSF 470**Station ID:** Northwest**Lab ID:** 0904005-07**Sample Matrix:** Solid**Date Collected:** 04/01/2009

Classical Chemistry Parameters

Targets

Analyte	Result % by Weight	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
% Solids	97.4			1	04/02/09	04/10/09 16:12	USGS I-5753-85



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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
Classical Chemistry Parameters

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch BD90202 - PD60/PD105

Duplicate (BD90202-DUP1)	Source: 0904005-01	Prepared: 04/02/09 14:11	Analyzed: 04/10/09 16:12
% Solids	97.1	% by Weight	97.3 0.2 20



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Office of Analytical Services and Quality Assurance
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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
PCB Congeners

Congener Number:	Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BI71205 - EPA 3540C PCB Congeners**Blank (BI71205-BLK2)**

Prepared: 04/06/09 16:45 Analyzed: 04/15/09 13:18

1	2-Monochlorobiphenyl	U	4.00	pg/g wet							
2	3-Monochlorobiphenyl	U	4.00	"							
3	4-Monochlorobiphenyl	U	4.00	"							
4	2,2'-Dichlorobiphenyl	U	4.00	"							
5	2,3-Dichlorobiphenyl	U	4.00	"							
6	2,3'-Dichlorobiphenyl	U	4.00	"							
7	2,4-Dichlorobiphenyl	U	4.00	"							
8	2,4'-Dichlorobiphenyl	16.2	4.00	"							
9	2,5-Dichlorobiphenyl	U	4.00	"							
10	2,6-Dichlorobiphenyl	U	4.00	"							
11	3,3'-Dichlorobiphenyl	90.0	4.00	"							
12/13	3,4-DiCB/3,4'-DiCB	24.2	4.00	"							
14	3,5-Dichlorobiphenyl	U	4.00	"							
15	4,4'-Dichlorobiphenyl	18.7	4.00	"							
16/24	2,2',3-TrCB/2,3,6-TrCB	11.6	4.00	"							
17	2,2',4-Trichlorobiphenyl	5.40	4.00	"							
18/30	2,2',5-TrCB/2,4,6-TrCB	21.0	4.00	"							
19	2,2',6-Trichlorobiphenyl	U	4.00	"							
20/28	2,3,3'-TrCB/2,4,4'-TrCB	42.0	4.00	"							
21/33	2,3,4-TrCB/2,3',4'-TrCB	29.3	4.00	"							
22	2,3,4'-Trichlorobiphenyl	28.4	4.00	"							
23	2,3,5-Trichlorobiphenyl	U	4.00	"							
25	2,3',4-Trichlorobiphenyl	5.16	4.00	"							
26/29	2,3',5-TrCB/2,4,5-TrCB	10.7	4.00	"							
27	2,3',6-Trichlorobiphenyl	U	4.00	"							
31	2,4',5-Trichlorobiphenyl	612	4.00	"							
32	2,4',6-Trichlorobiphenyl	6.96	4.00	"							
34	2,3',5'-Trichlorobiphenyl	U	4.00	"							
35	3,3',4-Trichlorobiphenyl	5.48	4.00	"							
36	3,3',5-Trichlorobiphenyl	U	4.00	"							
37	3,4,4'-Trichlorobiphenyl	25.9	4.00	"							
38	3,4,5-Trichlorobiphenyl	U	4.00	"							
39	3,4',5-Trichlorobiphenyl	5.16	4.00	"							
40/41/71	2,2',3,3'-TeCB/2,2',3,4-TeCB/2,3',4',6-TeCB	8.60	4.00	"							
42	2,2',3,4'-Tetrachlorobiphenyl	3.65	4.00	"							J
43/73	2,2',3,5-TeCB/2,3',5',6-TeCB	U	4.00	"							
44/47/65	2,2',3,5'-TeCB/2,2',4,4'-TeCB/2,3,5,6-TeCB	16.4	4.00	"							

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
PCB Congeners

Congener Number:	Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BI71205 - EPA 3540C PCB Congeners

Blank (BI71205-BLK2)						Prepared: 04/06/09 16:45	Analyzed: 04/15/09 13:18
45/51	2,2',3,6-TeCB/2,2',4,6'-TeCB	2.89	4.00	pg/g wet			J
46	2,2',3,6'-Tetrachlorobiphenyl	U	4.00	"			
48	2,2',4,5-Tetrachlorobiphenyl	U	4.00	"			
49/69	2,2',4,5'-TeCB/2,3',4,6-TeCB	8.40	4.00	"			
50/53	2,2',4,6-TeCB/2,2',5,6'-TeCB	U	4.00	"			
52	2,2',5,5'-Tetrachlorobiphenyl	14.8	4.00	"			
54	2,2',6,6'-Tetrachlorobiphenyl	U	4.00	"			
55	2,3,3',4-Tetrachlorobiphenyl	U	4.00	"			
56	2,3,3',4'-Tetrachlorobiphenyl	19.2	4.00	"			
57	2,3,3',5-Tetrachlorobiphenyl	U	4.00	"			
58	2,3,3',5'-Tetrachlorobiphenyl	U	4.00	"			
59/62/75	2,3,3',6-TeCB/2,3,4,6-TeCB/2,4,4',6-TeCB	U	4.00	"			
60	2,3,4,4'-Tetrachlorobiphenyl	6.96	4.00	"			
61/70/74/76	TeCB-61/70/74/76	42.0	4.00	"			
63	2,3,4',5-Tetrachlorobiphenyl	U	4.00	"			
64	2,3,4',6-Tetrachlorobiphenyl	8.76	4.00	"			
66	2,3',4,4'-Tetrachlorobiphenyl	15.6	4.00	"			
67	2,3',4,5-Tetrachlorobiphenyl	U	4.00	"			
68	2,3',4,5'-Tetrachlorobiphenyl	U	4.00	"			
72	2,3',5,5'-Tetrachlorobiphenyl	U	4.00	"			
77	3,3',4,4'-Tetrachlorobiphenyl	8.48	4.00	"			
78	3,3',4,5-Tetrachlorobiphenyl	U	4.00	"			
79	3,3',4,5'-Tetrachlorobiphenyl	U	4.00	"			
80	3,3',5,5'-Tetrachlorobiphenyl	U	4.00	"			
81	3,4,4',5-Tetrachlorobiphenyl	1.86	4.00	"			EMPC, J
82	2,2',3,3',4-Pentachlorobiphenyl	3.05	4.00	"			EMPC, J
83/99/112	2,2',3,3',5-PeCB/2,2',4,4',5-PeCB/2,3,3',5,6-PeCB	8.28	4.00	"			
84	2,2',3,3',6-Pentachlorobiphenyl	U	4.00	"			
85/116/117	2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	4.72	4.00	"			
86/87/97/109/1 PeCB-86/87/97/109/119/125		U	4.00	"			
19/125							
88/91	2,2',3,4,6-PeCB/2,2',3,4',6-PeCB	U	4.00	"			
89	2,2',3,4,6'-Pentachlorobiphenyl	U	4.00	"			
90/101/113	2,2',3,4',5-PeCB/2,2',4,5,5'-PeCB/2,3,3',5',6-PeCB	14.3	4.00	"			
92	2,2',3,5,5'-Pentachlorobiphenyl	U	4.00	"			
93/100	2,2',3,5,6-PeCB/2,2',4,4',6-PeCB	U	4.00	"			
94	2,2',3,5,6'-Pentachlorobiphenyl	U	4.00	"			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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701 Mapes Road
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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
PCB Congeners

Congener Number:	Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BI71205 - EPA 3540C PCB Congeners

Blank (BI71205-BLK2)

Prepared: 04/06/09 16:45 Analyzed: 04/15/09 13:18

95	2,2',3,5',6-Pentachlorobiphenyl	5.68	4.00	pg/g wet							
96	2,2',3,6,6'-Pentachlorobiphenyl	U	4.00	"							
98/102	2,2',3,4',6'-PeCB/2,2',4,5,6'-PeCB	U	4.00	"							
103	2,2',4,5',6-Pentachlorobiphenyl	U	4.00	"							
104	2,2',4,6,6'-Pentachlorobiphenyl	U	4.00	"							
105	2,3,3',4,4'-Pentachlorobiphenyl	86.0	4.00	"							EMPC
106	2,3,3',4,5-Pentachlorobiphenyl	U	4.00	"							
107	2,3,3',4',5-Pentachlorobiphenyl	U	4.00	"							
108/124	2,3,3',4,5'-PeCB/2,3',4',5,5'-PeCB	U	4.00	"							
110/115	2,3,3',4',6-PeCB/2,3,4,4',6-PeCB	12.2	4.00	"							
111	2,3,3',5,5'-Pentachlorobiphenyl	U	4.00	"							
114	2,3,4,4',5-Pentachlorobiphenyl	U	4.00	"							
118	2,3',4,4',5-Pentachlorobiphenyl	10.6	4.00	"							
120	2,3',4,5,5'-Pentachlorobiphenyl	U	4.00	"							
121	2,3',4,5',6-Pentachlorobiphenyl	U	4.00	"							
122	2,3,3',4',5'-Pentachlorobiphenyl	U	4.00	"							
123	2,3',4,4',5'-Pentachlorobiphenyl	U	4.00	"							
126	3,3',4,4',5-Pentachlorobiphenyl	U	4.00	"							
127	3,3',4,5,5'-Pentachlorobiphenyl	U	4.00	"							
128/166	2,2',3,3',4,4'-HxCB/2,3,4,4',5,6-HxCB	3.58	4.00	"							J
129/138/163	HxCB-129/138/163	9.04	4.00	"							
130	2,2',3,3',4,5'-Hexachlorobiphenyl	U	4.00	"							
131	2,2',3,3',4,6-Hexachlorobiphenyl	U	4.00	"							
132	2,2',3,3',4,6'-Hexachlorobiphenyl	4.20	4.00	"							
133	2,2',3,3',5,5'-Hexachlorobiphenyl	U	4.00	"							
134/143	2,2',3,3',5,6-HxCB/2,2',3,4,5,6'-HxCB	U	4.00	"							
135/151	2,2',3,3',5,6'-HxCB/2,2',3,5,5',6-HxCB	4.28	4.00	"							
136	2,2',3,3',6,6'-Hexachlorobiphenyl	3.01	4.00	"							J
137	2,2',3,4,4',5-Hexachlorobiphenyl	U	4.00	"							
139/140	2,2',3,4,4',6-HxCB/2,2',3,4,4',6-HxCB	U	4.00	"							
141	2,2',3,4,5,5'-Hexachlorobiphenyl	2.01	4.00	"							J
142	2,2',3,4,5,6-Hexachlorobiphenyl	U	4.00	"							
144	2,2',3,4,5',6-Hexachlorobiphenyl	U	4.00	"							
145	2,2',3,4,6,6'-Hexachlorobiphenyl	U	4.00	"							
146	2,2',3,4',5,5'-Hexachlorobiphenyl	2.28	4.00	"							J
147/149	2,2',3,4',5,6-HxCB/2,2',3,4',5',6-HxCB	7.08	4.00	"							
148	2,2',3,4',5,6'-Hexachlorobiphenyl	U	4.00	"							



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
PCB Congeners

Congener Number:	Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BI71205 - EPA 3540C PCB Congeners

Blank (BI71205-BLK2)

Prepared: 04/06/09 16:45 Analyzed: 04/15/09 13:18

150	2,2',3,4',6,6'-Hexachlorobiphenyl	U	4.00	pg/g wet							
152	2,2',3,5,6,6'-Hexachlorobiphenyl	U	4.00	"							
153/168	2,2',4,4',5,5'-HxCB/2,3',4,4',5,6-HxCB	8.16	4.00	"							
154	2,2',4,4',5,6'-Hexachlorobiphenyl	U	4.00	"							
155	2,2',4,4',6,6'-Hexachlorobiphenyl	U	4.00	"							
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5'-HxCB	5.16	4.00	"							
158	2,3,3',4,4',6-Hexachlorobiphenyl	U	4.00	"							
159	2,3,3',4,5,5'-Hexachlorobiphenyl	U	4.00	"							
160	2,3,3',4,5,6-Hexachlorobiphenyl	U	4.00	"							
161	2,3,3',4,5',6-Hexachlorobiphenyl	U	4.00	"							
162	2,3,3',4',5,5'-Hexachlorobiphenyl	54.0	4.00	"							EMPC
164	2,3,3',4',5',6-Hexachlorobiphenyl	U	4.00	"							
165	2,3,3',5,5',6-Hexachlorobiphenyl	U	4.00	"							
167	2,3',4,4',5,5'-Hexachlorobiphenyl	2.20	4.00	"							J
169	3,3',4,4',5,5'-Hexachlorobiphenyl	1.99	4.00	"							J
170	2,2',3,3',4,4',5-Heptachlorobiphenyl	32.9	4.00	"							EMPC
171/173	2,2',3,3',4,4',6-HpCB/2,2',3,3',4,5,6-HpCB	U	4.00	"							
172	2,2',3,3',4,5,5'-Heptachlorobiphenyl	U	4.00	"							
174	2,2',3,3',4,5,6-Heptachlorobiphenyl	6.76	4.00	"							
175	2,2',3,3',4,5',6-Heptachlorobiphenyl	U	4.00	"							
176	2,2',3,3',4,6,6'-Heptachlorobiphenyl	U	4.00	"							
177	2,2',3,3',4,5',6-Heptachlorobiphenyl	U	4.00	"							
178	2,2',3,3',5,5',6-Heptachlorobiphenyl	U	4.00	"							
179	2,2',3,3',5,6,6'-Heptachlorobiphenyl	2.35	4.00	"							J
180/193	2,2',3,4,4',5,5'-HpCB/2,3,3',4,5,5'-HpCB	7.72	4.00	"							
181	2,2',3,4,4',5,6-Heptachlorobiphenyl	U	4.00	"							
182	2,2',3,4,4',5,6-Heptachlorobiphenyl	U	4.00	"							
183/185	2,2',3,4,4',5',6-HpCB/2,2',3,4,5,5'-HpCB	U	4.00	"							
184	2,2',3,4,4',6,6'-Heptachlorobiphenyl	U	4.00	"							
186	2,2',3,4,5,6-Heptachlorobiphenyl	U	4.00	"							
187	2,2',3,4',5,5',6-Heptachlorobiphenyl	3.10	4.00	"							J
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl	U	4.00	"							
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl	2.49	4.00	"							J
190	2,3,3',4,4',5,6-Heptachlorobiphenyl	U	4.00	"							
191	2,3,3',4,4',5',6-Heptachlorobiphenyl	U	4.00	"							
192	2,3,3',4,5,5',6-Heptachlorobiphenyl	U	4.00	"							
194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl	3.84	4.00	"							J



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
PCB Congeners

Congener Number:	Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BI71205 - EPA 3540C PCB Congeners

Blank (BI71205-BLK2)

Prepared: 04/06/09 16:45 Analyzed: 04/15/09 13:18

195	2,2',3,3',4,4',5,6-Octachlorobiphenyl	U	4.00	pg/g wet							J
196	2,2',3,3',4,4',5,6'-Octachlorobiphenyl	3.54	4.00	"							
197/200	2,2',3,3',4,4',6,6'-OcCB/2,2',3,3',4,5,6,6'-OcCB	1.62	4.00	"							J
198/199	2,2',3,3',4,5,5',6-OcCB/2,2',3,3',4,5,5',6'-OcCB	2.86	4.00	"							J
201	2,2',3,3',4,5',6,6'-Octachlorobiphenyl	0.896	4.00	"							J
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	0.848	4.00	"							J
203	2,2',3,4,4',5,5',6-Octachlorobiphenyl	1.19	4.00	"							J
204	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	U	4.00	"							
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	U	4.00	"							
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	2.16	4.00	"							J
207	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	0.868	4.00	"							EMPC, J
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	0.748	4.00	"							J
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	1.79	4.00	"							J
1-3	Total Monochlorobiphenyl	U	4.00	"							
4-15	Total Dichlorobiphenyl	149	4.00	"							
16-39	Total Trichlorobiphenyl	809	4.00	"							
40-81	Total Tetrachlorobiphenyl	158	4.00	"							
82-127	Total Pentachlorobiphenyl	145	4.00	"							
128-169	Total Hexachlorobiphenyl	107	4.00	"							
170-193	Total Heptachlorobiphenyl	55.3	4.00	"							
194-205	Total Octachlorobiphenyl	14.8	4.00	"							
206-208	Total Nonachlorobiphenyl	3.78	4.00	"							J
209	Decachlorobiphenyl	1.79	4.00	"							J
1L	Surrogate:13C12-2-Monochlorobiphenyl	0.531	ng/mL	100.00	0.5	15-150					A
3L	Surrogate:13C12-4-Monochlorobiphenyl	2.23	"	100.00	2	15-150					A
4L	Surrogate:13C12-2,2'-Dichlorobiphenyl	1.76	"	100.00	2	25-150					A
15L	Surrogate:13C12-4,4'-Dichlorobiphenyl	11.6	"	100.00	12	25-150					A
19L	Surrogate:13C12-2,2',6-Trichlorobiphenyl	5.22	"	100.00	5	25-150					A
37L	Surrogate:13C12-3,4,4'-Trichlorobiphenyl	19.7	"	100.00	20	25-150					A
54L	Surrogate:13C12-2,2',6,6'-Tetrachlorobiphenyl	8.71	"	100.00	9	25-150					A
77L	Surrogate:13C12-3,3',4,4'-Tetrachlorobiphenyl	27.3	"	100.00	27	25-150					
81L	Surrogate:13C12-3,4,4',5-Tetrachlorobiphenyl	24.9	"	100.00	25	25-150					
104L	Surrogate:13C12-2,2',4,6,6'-Pentachlorobiphenyl	13.5	"	100.00	14	25-150					A
105L	Surrogate:13C12-2,3,3',4,4'-Pentachlorobiphenyl	29.6	"	100.00	30	25-150					
114 L	Surrogate:13C12-2,3,4,4',5-Pentachlorobiphenyl	24.4	"	100.00	24	25-150					
118 L	Surrogate:13C12-2,3',4,4',5-Pentachlorobiphenyl	26.0	"	100.00	26	25-150					
123L	Surrogate:13C12-2',3,4,4',5-Pentachlorobiphenyl	27.1	"	100.00	27	25-150					

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
PCB Congeners

Congener Number:	Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BI71205 - EPA 3540C PCB Congeners

Blank (BI71205-BLK2)

Prepared: 04/06/09 16:45 Analyzed: 04/15/09 13:18					
126L	Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl	31.4	ng/mL	100.00	31 25-150
155L	Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl	15.8	"	100.00	16 25-150
156L/157L	Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB	56.6	"	200.00	28 25-150
167L	Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl	26.1	"	100.00	26 25-150
169L	Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl	33.6	"	100.00	34 25-150
188L	Surrogate: 13C12-2,2',3,4',5,6,6'-Heptachlorobiphenyl	28.4	"	100.00	28 25-150
189L	Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl	35.3	"	100.00	35 25-150
202L	Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl	31.3	"	100.00	31 25-150
205L	Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl	27.2	"	100.00	27 25-150
206L	Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	24.5	"	100.00	24 25-150
208L	Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	26.0	"	100.00	26 25-150
209L	Surrogate: 13C12-Decachlorobiphenyl	26.7	"	100.00	27 25-150
28L	Surrogate: 13C12-2,4,4'-Trichlorobiphenyl	0.00	"	100.00	30-135
111 L	Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl	0.00	"	100.00	30-135
178L	Surrogate: 13C12-2,2',3,3',5,5',6-Heptachlorobiphenyl	0.00	"	100.00	30-135

LCS (BI71205-BS1)

Prepared: 04/06/09 16:45 Analyzed: 04/15/09 14:21					
1	2-Monochlorobiphenyl	134	4.00	pg/g wet	335 50-150
3	4-Monochlorobiphenyl	110	4.00	"	274 50-150
4	2,2'-Dichlorobiphenyl	128	4.00	"	319 50-150
15	4,4'-Dichlorobiphenyl	168	4.00	"	421 50-150
19	2,2',6-Trichlorobiphenyl	62.8	4.00	"	157 50-150
37	3,4,4'-Trichlorobiphenyl	174	4.00	"	435 50-150
54	2,2',6,6'-Tetrachlorobiphenyl	62.4	4.00	"	156 50-150
77	3,3',4,4'-Tetrachlorobiphenyl	86.4	4.00	"	216 50-150
81	3,4,4',5-Tetrachlorobiphenyl	66.0	4.00	"	165 50-150
104	2,2',4,6,6'-Pentachlorobiphenyl	63.2	4.00	"	158 50-150
105	2,3,3',4,4'-Pentachlorobiphenyl	357	4.00	"	893 50-150
114	2,3,4,4',5-Pentachlorobiphenyl	69.2	4.00	"	173 50-150
118	2,3',4,4',5-Pentachlorobiphenyl	89.6	4.00	"	224 50-150
123	2,3',4,4',5'-Pentachlorobiphenyl	62.8	4.00	"	157 50-150
126	3,3',4,4',5-Pentachlorobiphenyl	63.2	4.00	"	158 50-150
155	2,2',4,4',6,6'-Hexachlorobiphenyl	55.6	4.00	"	139 50-150
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5'-HxCB	142	4.00	"	178 50-150
167	2,3',4,4',5,5'-Hexachlorobiphenyl	73.2	4.00	"	183 50-150
169	3,3',4,4',5,5'-Hexachlorobiphenyl	64.8	4.00	"	162 50-150
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl	64.4	4.00	"	161 50-150



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
PCB Congeners

Congener Number:	Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BI71205 - EPA 3540C PCB Congeners

LCS (BI71205-BS1)

					Prepared: 04/06/09 16:45	Analyzed: 04/15/09 14:21		
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl	65.2	4.00	pg/g wet	40.000	163	50-150	A
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	61.6	4.00	"	40.000	154	50-150	A
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	68.4	4.00	"	40.000	171	50-150	A
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	66.4	4.00	"	40.000	166	50-150	A
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	66.0	4.00	"	40.000	165	50-150	A
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	70.0	4.00	"	40.000	175	50-150	A
1L	Surrogate: 13C12-2-Monochlorobiphenyl	0.368	ng/mL	100.00	0.4	15-150		A
3L	Surrogate: 13C12-4-Monochlorobiphenyl	1.57	"	100.00	2	15-150		A
4L	Surrogate: 13C12-2,2'-Dichlorobiphenyl	1.10	"	100.00	1	25-150		A
15L	Surrogate: 13C12-4,4'-Dichlorobiphenyl	8.48	"	100.00	8	25-150		A
19L	Surrogate: 13C12-2,2',6-Trichlorobiphenyl	3.67	"	100.00	4	25-150		A
37L	Surrogate: 13C12-3,4,4'-Trichlorobiphenyl	15.8	"	100.00	16	25-150		A
54L	Surrogate: 13C12-2,2',6,6'-Tetrachlorobiphenyl	5.86	"	100.00	6	25-150		A
77L	Surrogate: 13C12-3,4,4'-Tetrachlorobiphenyl	23.4	"	100.00	23	25-150		A
81L	Surrogate: 13C12-3,4,4'-Tetrachlorobiphenyl	20.9	"	100.00	21	25-150		A
104L	Surrogate: 13C12-2,2',4,6,6'-Pentachlorobiphenyl	10.5	"	100.00	10	25-150		A
105L	Surrogate: 13C12-2,3,3',4,4'-Pentachlorobiphenyl	27.5	"	100.00	28	25-150		A
114 L	Surrogate: 13C12-2,3,4,4',5-Pentachlorobiphenyl	22.6	"	100.00	23	25-150		A
118 L	Surrogate: 13C12-2,3',4,4',5-Pentachlorobiphenyl	22.9	"	100.00	23	25-150		A
123L	Surrogate: 13C12-2',3,4,4',5-Pentachlorobiphenyl	23.8	"	100.00	24	25-150		A
126L	Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl	28.2	"	100.00	28	25-150		A
155L	Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl	13.1	"	100.00	13	25-150		A
156L/157L	Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB	50.0	"	200.00	25	25-150		A
167L	Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl	23.5	"	100.00	24	25-150		A
169L	Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl	27.3	"	100.00	27	25-150		A
188L	Surrogate: 13C12-2,2',3,3',4,5,6,6'-Heptachlorobiphenyl	24.8	"	100.00	25	25-150		A
189L	Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl	30.9	"	100.00	31	25-150		A
202L	Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl	30.2	"	100.00	30	25-150		A
205L	Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl	23.6	"	100.00	24	25-150		A
206L	Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	21.7	"	100.00	22	25-150		A
208L	Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	23.4	"	100.00	23	25-150		A
209L	Surrogate: 13C12-Decachlorobiphenyl	24.9	"	100.00	25	25-150		A
28L	Surrogate: 13C12-2,4,4'-Trichlorobiphenyl	0.376	"	100.00	0.4	30-135		A
111 L	Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl	0.388	"	100.00	0.4	30-135		A
178L	Surrogate: 13C12-2,2',3,3',5,5',6-Heptachlorobiphenyl	0.355	"	100.00	0.4	30-135		A



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
PCB Congeners

Congener Number:	Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BI71205 - EPA 3540C PCB Congeners

Matrix Spike (BI71205-MS1)		Source: 0904005-07			Prepared: 04/06/09 16:45		Analyzed: 04/16/09 02:46			
1	2-Monochlorobiphenyl	U	2.89	pg/g dry	144.40	0.00		50-150		C
3	4-Monochlorobiphenyl	U	2.89	"	144.40	0.00		50-150		C
4	2,2'-Dichlorobiphenyl	U	2.89	"	144.40	0.00		50-150		C
15	4,4'-Dichlorobiphenyl	U	2.89	"	144.40	9.15	NR	50-150		C
19	2,2',6-Trichlorobiphenyl	U	2.89	"	144.40	0.00		50-150		C
37	3,4,4'-Trichlorobiphenyl	244	2.89	"	144.40	11.4	161	50-150		A
54	2,2',6,6'-Tetrachlorobiphenyl	U	2.89	"	144.40	0.00		50-150		C
77	3,3',4,4'-Tetrachlorobiphenyl	253	2.89	"	144.40	9.26	169	50-150		A
81	3,4,4',5-Tetrachlorobiphenyl	256	2.89	"	144.40	0.00	177	50-150		A
104	2,2',4,6,6'-Pentachlorobiphenyl	236	2.89	"	144.40	0.00	164	50-150		A
105	2,3,3',4,4'-Pentachlorobiphenyl	247	2.89	"	144.40	72.3	121	50-150		
114	2,3,4,4',5-Pentachlorobiphenyl	240	2.89	"	144.40	0.00	166	50-150		A
118	2,3',4,4',5-Pentachlorobiphenyl	232	2.89	"	144.40	20.1	147	50-150		
123	2,3',4,4',5-Pentachlorobiphenyl	213	2.89	"	144.40	0.941	147	50-150		
126	3,3',4,4',5-Pentachlorobiphenyl	240	2.89	"	144.40	0.00	166	50-150		A
155	2,2',4,4',6,6'-Hexachlorobiphenyl	219	2.89	"	144.40	0.00	152	50-150		A
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5'-HxCB	517	2.89	"	288.80	5.28	177	50-150		A
167	2,3',4,4',5,5'-Hexachlorobiphenyl	258	2.89	"	144.40	3.04	177	50-150		A
169	3,3',4,4',5,5'-Hexachlorobiphenyl	237	2.89	"	144.40	0.00	164	50-150		A
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl	218	2.89	"	144.40	0.00	151	50-150		A
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl	233	2.89	"	144.40	0.00	161	50-150		A
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	219	2.89	"	144.40	3.54	149	50-150		
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	253	2.89	"	144.40	0.00	175	50-150		A
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	232	2.89	"	144.40	6.96	156	50-150		A
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	238	2.89	"	144.40	2.63	163	50-150		A
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	253	2.89	"	144.40	5.02	172	50-150		A
1L	Surrogate: 13C12-2-Monochlorobiphenyl	0.00	ng/mL		100.00			15-150		C
3L	Surrogate: 13C12-4-Monochlorobiphenyl	0.00	"		100.00			15-150		C
4L	Surrogate: 13C12-2,2'-Dichlorobiphenyl	0.00	"		100.00			25-150		C
15L	Surrogate: 13C12-4,4'-Dichlorobiphenyl	0.00	"		100.00			25-150		C
19L	Surrogate: 13C12-2,2',6-Trichlorobiphenyl	0.00	"		100.00			25-150		C
37L	Surrogate: 13C12-3,4,4'-Trichlorobiphenyl	0.00	"		100.00			25-150		C
54L	Surrogate: 13C12-2,2',6,6'-Tetrachlorobiphenyl	0.00	"		100.00			25-150		C
77L	Surrogate: 13C12-3,3',4,4'-Tetrachlorobiphenyl	33.3	"		100.00	33		25-150		
81L	Surrogate: 13C12-3,4,4',5-Tetrachlorobiphenyl	30.9	"		100.00	31		25-150		
104L	Surrogate: 13C12-2,2',4,6,6'-Pentachlorobiphenyl	17.3	"		100.00	17		25-150		A
105L	Surrogate: 13C12-2,3,3',4,4'-Pentachlorobiphenyl	32.5	"		100.00	32		25-150		

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
PCB Congeners

Congener Number:	Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BI71205 - EPA 3540C PCB Congeners

Matrix Spike (BI71205-MS1)		Source: 0904005-07		Prepared: 04/06/09 16:45		Analyzed: 04/16/09 02:46				
114 L	Surrogate: 13C12-2,3,4,4',5-Pentachlorobiphenyl	29.4	ng/mL	100.00		29	25-150			
118 L	Surrogate: 13C12-2,3',4,4',5-Pentachlorobiphenyl	30.6	"	100.00		31	25-150			
123L	Surrogate: 13C12-2',3,4,4',5-Pentachlorobiphenyl	31.1	"	100.00		31	25-150			
126L	Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl	36.1	"	100.00		36	25-150			
155L	Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl	19.5	"	100.00		20	25-150			
156L/157L	Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB	68.3	"	200.00		34	25-150			A
167L	Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl	33.1	"	100.00		33	25-150			
169L	Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl	44.0	"	100.00		44	25-150			
188L	Surrogate: 13C12-2,2',3,4',5,6,6'-Heptachlorobiphenyl	41.2	"	100.00		41	25-150			
189L	Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl	42.1	"	100.00		42	25-150			
202L	Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl	45.9	"	100.00		46	25-150			
205L	Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl	30.1	"	100.00		30	25-150			
206L	Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	29.7	"	100.00		30	25-150			
208L	Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	28.1	"	100.00		28	25-150			
209L	Surrogate: 13C12-Decachlorobiphenyl	29.8	"	100.00		30	25-150			
28L	Surrogate: 13C12-2,4,4'-Trichlorobiphenyl	1.29	"	100.00		1	30-135			A
111 L	Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl	35.7	"	100.00		36	30-135			
178L	Surrogate: 13C12-2,2',3,3',5,5'-Heptachlorobiphenyl	39.2	"	100.00		39	30-135			

Matrix Spike Dup (BI71205-MSD1)		Source: 0904005-07		Prepared: 04/06/09 16:45		Analyzed: 04/16/09 03:48				
1	2-Monochlorobiphenyl	313	3.10	pg/g dry	155.09	0.00	202	50-150	25	A
3	4-Monochlorobiphenyl	306	3.10	"	155.09	0.00	197	50-150	25	A
4	2,2'-Dichlorobiphenyl	239	3.10	"	155.09	0.00	154	50-150	25	A
15	4,4'-Dichlorobiphenyl	308	3.10	"	155.09	9.15	193	50-150	25	A
19	2,2',6-Trichlorobiphenyl	196	3.10	"	155.09	0.00	127	50-150	25	A
37	3,4,4'-Trichlorobiphenyl	263	3.10	"	155.09	11.4	162	50-150	0.5	A
54	2,2',6,6'-Tetrachlorobiphenyl	218	3.10	"	155.09	0.00	141	50-150	25	A
77	3,3',4,4'-Tetrachlorobiphenyl	260	3.10	"	155.09	9.26	162	50-150	4	A
81	3,4,4',5-Tetrachlorobiphenyl	273	3.10	"	155.09	0.00	176	50-150	0.8	A
104	2,2',4,6,6'-Pentachlorobiphenyl	249	3.10	"	155.09	0.00	161	50-150	2	A
105	2,3,3',4,4'-Pentachlorobiphenyl	269	3.10	"	155.09	72.3	127	50-150	5	25
114	2,3,4,4',5-Pentachlorobiphenyl	270	3.10	"	155.09	0.00	174	50-150	4	A
118	2,3',4,4',5-Pentachlorobiphenyl	257	3.10	"	155.09	20.1	153	50-150	4	25
123	2,3',4,4',5-Pentachlorobiphenyl	228	3.10	"	155.09	0.941	146	50-150	0.5	25
126	3,3',4,4',5-Pentachlorobiphenyl	253	3.10	"	155.09	0.00	163	50-150	2	25
155	2,2',4,4',6,6'-Hexachlorobiphenyl	241	3.10	"	155.09	0.00	155	50-150	2	A
156/157	2,3,3',4,4',5-HxCB/2,3,3',4,4',5-HxCB	558	3.10	"	310.18	5.28	178	50-150	0.6	25
167	2,3',4,4',5,5'-Hexachlorobiphenyl	291	3.10	"	155.09	3.04	186	50-150	5	A

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

QC Data
PCB Congeners

Congener Number:	Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BI71205 - EPA 3540C PCB Congeners

Matrix Spike Dup (BI71205-MSD1)		Source: 0904005-07			Prepared: 04/06/09 16:45			Analyzed: 04/16/09 03:48			
169	3,3',4,4',5,5'-Hexachlorobiphenyl	261	3.10	pg/g dry	155.09	0.00	168	50-150	3	25	A
188	2,2',3,4',5,6,6'-Heptachlorobiphenyl	245	3.10	"	155.09	0.00	158	50-150	5	25	A
189	2,3,3',4,4',5,5'-Heptachlorobiphenyl	259	3.10	"	155.09	0.00	167	50-150	4	25	A
202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	245	3.10	"	155.09	3.54	156	50-150	5	25	A
205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	282	3.10	"	155.09	0.00	182	50-150	3	25	A
206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	256	3.10	"	155.09	6.96	160	50-150	3	25	A
208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	252	3.10	"	155.09	2.63	161	50-150	1	25	A
209	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	275	3.10	"	155.09	5.02	174	50-150	1	25	A
1L	Surrogate: 13C12-2-Monochlorobiphenyl	16.5	ng/mL	100.00		16	15-150				
3L	Surrogate: 13C12-4-Monochlorobiphenyl	18.2	"	100.00		18	15-150				
4L	Surrogate: 13C12-2,2'-Dichlorobiphenyl	19.8	"	100.00		20	25-150				A
15L	Surrogate: 13C12-4,4'-Dichlorobiphenyl	33.0	"	100.00		33	25-150				
19L	Surrogate: 13C12-2,2',6-Trichlorobiphenyl	24.6	"	100.00		25	25-150				
37L	Surrogate: 13C12-3,4,4'-Trichlorobiphenyl	35.8	"	100.00		36	25-150				
54L	Surrogate: 13C12-2,2',6,6'-Tetrachlorobiphenyl	24.5	"	100.00		24	25-150				
77L	Surrogate: 13C12-3,3',4,4'-Tetrachlorobiphenyl	32.9	"	100.00		33	25-150				
81L	Surrogate: 13C12-3,4,4',5-Tetrachlorobiphenyl	30.8	"	100.00		31	25-150				
104L	Surrogate: 13C12-2,2',4,6,6'-Pentachlorobiphenyl	25.1	"	100.00		25	25-150				
105L	Surrogate: 13C12-2,3,3',4,4'-Pentachlorobiphenyl	29.4	"	100.00		29	25-150				
114 L	Surrogate: 13C12-2,3,4,4',5-Pentachlorobiphenyl	26.9	"	100.00		27	25-150				
118 L	Surrogate: 13C12-2,3',4,4',5-Pentachlorobiphenyl	28.9	"	100.00		29	25-150				
123L	Surrogate: 13C12-2',3,4,4',5-Pentachlorobiphenyl	29.1	"	100.00		29	25-150				
126L	Surrogate: 13C12-3,3',4,4',5-Pentachlorobiphenyl	32.1	"	100.00		32	25-150				
155L	Surrogate: 13C12-2,2',4,4',6,6'-Hexachlorobiphenyl	22.5	"	100.00		22	25-150				A
156L/157L	Surrogate: 13C12-2,3,3',4,4',5-HxCB/13C12-2,3,3',4,4',5'-HxCB	60.0	"	200.00		30	25-150				
167L	Surrogate: 13C12-2,3',4,4',5,5'-Hexachlorobiphenyl	28.1	"	100.00		28	25-150				
169L	Surrogate: 13C12-3,3',4,4',5,5'-Hexachlorobiphenyl	36.2	"	100.00		36	25-150				
188L	Surrogate: 13C12-2,2',3,4',5,6,6'-Heptachlorobiphenyl	41.9	"	100.00		42	25-150				
189L	Surrogate: 13C12-2,3,3',4,4',5,5'-Heptachlorobiphenyl	35.1	"	100.00		35	25-150				
202L	Surrogate: 13C12-2,2',3,3',5,5',6,6'-Octachlorobiphenyl	41.1	"	100.00		41	25-150				
205L	Surrogate: 13C12-2,3,3',4,4',5,5',6-Octachlorobiphenyl	24.8	"	100.00		25	25-150				
206L	Surrogate: 13C12-2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	24.4	"	100.00		24	25-150				A
208L	Surrogate: 13C12-2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	24.6	"	100.00		25	25-150				
209L	Surrogate: 13C12-Decachlorobiphenyl	24.6	"	100.00		25	25-150				
28L	Surrogate: 13C12-2,4,4'-Trichlorobiphenyl	34.5	"	100.00		34	30-135				
111 L	Surrogate: 13C12-2,3,3',5,5'-Pentachlorobiphenyl	34.3	"	100.00		34	30-135				
178L	Surrogate: 13C12-2,2',3,3',5,5',6-Heptachlorobiphenyl	35.1	"	100.00		35	30-135				

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350



Site Name: Kettleman Hills Waste Management Facility

Project #: NSF 470

Notes and Definitions

- J The identification of the analyte is acceptable; the reported value is an estimate.
- EMPC The theoretical ion abundance ratio of the two m/z ions do not meet the 25% criteria, and the result is an Estimated Maximum Possible Concentration.
- C See narrative for comments and observations concerning this result.
- B Not detected substantially above (10 times) the level reported in the laboratory or field blanks (including field, trip, rinsate, and equipment blanks).
- A Quality control value is outside acceptance limits.
- NR Not Reported
- RPD Relative Percent Difference
- U Analyte included in the analysis, but not detected at or above the quantitation limit.

Quantitation Limit: The lowest concentration of an analyte that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method and that takes into account analytical adjustments made during sample preparation and analysis.

SOLID SAMPLE RESULTS - REPORTING PROTOCOL: Solid samples where % Solids (percent dry wt at 105 degrees C) has been performed, are analyzed wet and converted to a dry weight result for reporting purposes. This is routine for organics and most inorganic analyses. When metals and mercury analyses are requested, solid samples are routinely analyzed and reported on a dry weight basis. Solid samples for metals/mercury are prepared for analysis by an initial drying at 60 degree C and homogenization before digestion. Oil-type samples will be analyzed and reported on a wet weight basis for all analyses because of the nature of the sample. Any exceptions to the protocol will be noted with a qualifier



THE LEADER IN ENVIRONMENTAL TESTING

May 19, 2009

TestAmerica Project Number: G9D030338

PO/Contract: 0742-816-02

Haley Hudson
Wenck Associates, Inc.
11113 Houze Road
Suite 200
Roswell, GA 30076

Dear Ms. Hudson,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on April 3, 2009. These samples are associated with your KHF SOIL project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4384.

Sincerely,

A handwritten signature in black ink, appearing to read "Karen Dahl".

Karen Dahl
Project Manager

Table of Contents

TestAmerica West Sacramento Project Number G9D030338

Case Narrative

Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

SOLID, 1668, WHO PCB congeners

Samples: 1, 2, 3, 4, 5, 6, 7, 8

 Sample Data Sheets

 Method Blank Report

 Laboratory QC Reports

SOLID, D 2216-90, Percent Moisture

Samples: 1, 2, 3, 4, 5, 6, 7, 8

 Sample Data Sheets

 Laboratory QC Reports

Full Raw Data Package

Case Narrative

TestAmerica West Sacramento Project Number G9D030338

General Comments

As requested, a 10:1 composite was performed on samples 1-8.

SOLID, 1668, WHO PCB congeners

Samples: 1, 2, 3, 4, 5, 6, 7, 8

As discussed, the associated method blank contains a positive result for PCB 118 (2.3 pg/g). Since the associated results for this analyte were greater than 5X the amount present in the method blank, no corrective action was performed.

Samples: 1, 2, 3, 4, 5, 6, 7

The extracts for these samples were diluted 5X due to matrix interferences that were observed in the undiluted analyses. The detection limits were elevated accordingly.

Samples: 1, 3, 4, 5, 8

These samples have some high internal standard recoveries. The target analytes associated with these internal standards are 'ND' well below the detection limit except for sample 8. Sample 8 has a positive hit for PCB 156. This target analyte result compares to the value reported for the duplicate analysis performed on this sample. The duplicate analysis had an acceptance recovery for this internal standard. There should be no impact on the data.

Samples: 2, 6

The PCB 77 detection limits were elevated for these samples due to matrix interferences. These elevated detection limits have been flagged with a 'G' qualifier and may be considered maximum possible concentrations.

Samples: 8

The PCB 77 & PCB 123 detection limits were elevated for these samples due to matrix interferences. These elevated detection limits have been flagged with a 'G' qualifier and may be considered maximum possible concentrations.

Sample: 2

This sample had low recoveries for two internal standards. The data quality is not considered affected if the internal standard signal-to-noise ratio is greater than 10:1, which is achieved for all internal standards in the sample. There should be no impact on the data.

Case Narrative

TestAmerica West Sacramento Project Number G9D030338

Sample: 8

The PCB 189 result for this sample has been flagged with a 'Q' qualifier since its ion abundance ratio did not meet acceptance criteria. This analyte has been reported as an 'estimated maximum possible concentration' since its quantitation was based on a theoretical ion abundance ratio.

Samples: 1, 2, 3, 4, 5, 6, 7, 8

The duplicate analysis, which was performed on sample 8, has a high RPD for PCB 167.

There are no other anomalies associated with this project.

TestAmerica Laboratories West Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	New York*	11666
Arizona	AZ0708	Oregon*	CA 200005
Arkansas	88-0691	Pennsylvania	68-1272
California*	01119CA	South Carolina	87014
Colorado	NA	Texas	T104704399-08-TX
Connecticut	PH-0691	Utah*	QUAN1
Florida*	E87570	Virginia	00178
Georgia	960	Washington	C1281
Hawaii	NA	West Virginia	9930C, 334
Illinois	200060	Wisconsin	998204680
Kansas*	E-10375	NFESC	NA
Louisiana*	30612	USACE	NA
Michigan	9947	USDA Foreign Plant	37-82605
Nevada	CA44	USDA Foreign Soil	P330-09-00055
New Jersey*	CA005	US Fish & Wildlife	LE148388-0
New Mexico	NA	Guam	NA

*NELAP accredited. A more detailed parameter list is available upon request. Updated 3/25/2009

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

Sample Summary

TestAmerica West Sacramento Project Number G9D030338

<u>WO#</u>	<u>Sample #</u>	<u>Client Sample ID</u>	<u>Sampling Date</u>	<u>Received Date</u>
K9LD2	1	090331-SW-01-S TO 10-S-COMPOSITE	3/31/2009 09:55 AM	4/3/2009 09:35 AM
K9LD3	2	090331-NE-01-S TO 10-S COMPOSITE	3/31/2009 12:27 PM	4/3/2009 09:35 AM
K9LD4	3	090331-N-01-S TO 10-S-COMPOSITE	3/31/2009 03:36 PM	4/3/2009 09:35 AM
K9LD5	4	090331-S-01-S TO 10-S-COMPOSITE	3/31/2009 05:59 PM	4/3/2009 09:35 AM
K9LD6	5	090401-NW-01-S TO 10-S-COMPOSITE	4/1/2009 08:35 AM	4/3/2009 09:35 AM
K9LD7	6	090401-B18-01-S TO 10-S-COMPOSITE	4/1/2009 08:50 AM	4/3/2009 09:35 AM
K9LD8	7	090401-W-01-S TO 10-S-COMPOSITE	4/1/2009 01:35 PM	4/3/2009 09:35 AM
K9LD9	8	090401-SE-01-S TO 10-S-COMPOSITE	4/1/2009 03:38 PM	4/3/2009 09:35 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Chain of Custody Record

G9D030338

Temperature on Receipt _____

Drinking Water? Yes No

THE LEADER IN ENVIRONMENTAL TESTING

Client Chemical Waste Management, Inc.		Project Manager Paul Turek	Date 04/02/09	Chain of Custody Number 107207
Address 35251 Old Skyline Road		Telephone Number (Area Code)/Fax Number (559) 386-6151	Lab Number /	Page / of /
City Kettleman City	State CA	Zip Code 93239	Site Contact Steve Holshouser	Lab Contact Karen Dahl
Project Name and Location (State) KHF		Carrie/Mailbill Number F-0 EX	Analysis (Attach list if more space is needed)	
Contract/Purchase Order/Quote No. 0742-816-02		Matrix	Containers & Preservatives	
(Containers for each sample may be combined on one line)		Date	Time	Method
090331 - NE-01-S- 13 SEH		3-31-09	12:27	X K
090331 - NE-02-S- 13 SEH		3-31-09	12:10	X K
090331 - NE-03-S- 13 SEH		3-31-09	11:54	X K
090331 - NE-04-S- 13 SEH		3-31-09	11:39	X K
090331 - NE-05-S- 13 SEH		3-31-09	11:26	X K
090331 - NE-06-S- 13 SEH		3-31-09	11:10	X K
090331 - NE-07-S- 13 SEH		3-31-09	10:55	X K
090331 - NE-08-S- 13 SEH		3-31-09	10:40	X K
090331 - NE-09-S- 13 SEH		3-31-09	10:18	X K
090331 - NE-10-S- 13 SEH		3-31-09	9:55	X K
090331 - NE-SPLIT S- SEH		03-31-09	12:22	X X
Temp Blank		N/A	N/A	X
Possible Hazard Identification		Sample Disposal		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison A <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Poison B		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <u>12</u> Months (A fee may be assessed if samples are retained longer than 1 month)		
Turn Around Time Required		QC Requirements (Specify)		
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other <u>STD</u>				
1. Relinquished By <u>Steve Holshouser</u>		Date 04/02/09	Time 1700	1. Received By <u>Cliff May</u>
2. Relinquished By		Date	Time	2. Received By
3. Relinquished By		Date	Time	3. Received By
Comments # 12 White Dioxin-like PCB Concentrates per agreement with Client with Report CANARY. Stays with the Sample, PINK Field Copy		Samplers initials WLB or SEH		
DISTRIBUTION: WHITE - Returned to Client with Report CANARY. Stays with the Sample, PINK Field Copy		Date 04/02/09	Time 1300	
		Date	Time	
		Date	Time	

**Chain of
Custody Record**

G9D030338

Temperature on Receipt

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Drinking Water? Yes No

TAL-4124 (1007)	Client Chemical Waste Management, Inc.	Project Manager Paul Turek	Date 04/02/09	Chain of Custody Number 108094																																																																																																																									
Address 35251 Old Skyline Road	Telephone Number (Area Code)/Fax Number (559) 386-6151	Lab Number /	Page / of /																																																																																																																										
City Kettleman City	State CA	Zip Code 93239	Site Contact Steve Holstouser	Lab Contact Karen Dahl	Analysis (Attach list if more space is needed)																																																																																																																								
Carrier/Vessel Number KHF		Project Name and Location (State) Contract/Purchase Order/Quote No. 0742-816-02		Special Instructions/ Conditions of Receipt																																																																																																																									
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* 12 WHO 1997 Dioxin-Like PCB Congeners per agreement with Wenck.

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

G9D030338

Temperature on Receipt _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client Address 35251 Old Skyline Road		Project Manager Paul Turek	Date 04/02/09	Chain of Custody Number 107203
City Kettneran City		State CA	Telephone Number (Area Code)/Fax Number (559) 386-6151	Lab Number []
Project Name and Location (State) KHF		Zip Code 93239	Site Contact Steve Holshouser	Page 1 of 1
Carrier/Waybill Number FED EX		Carrier/Waybill Number FED EX	Analysis (Attach list if more space is needed)	
Contract/Purchase Order/Quote No. 0743-816-02		Containers & Preservatives #1668a		Special Instructions/ Conditions of Receipt
		Matrix		
		Soil		
		Aquatic		
		Upers		
		H2SO4		
		NaOH		
		HCl		
		NaO3		
		Upters		
		Pres		
		Seal		
		Abreus		
Sample I.D. No. and Description (Containers for each sample may be combined on one line)		Date	Time	
090331 - S-01-S-25F		11:44	17:59	X X
090331 - S-02-S-25F		16:00	17:48	X X
090331 - S-03-S-25F		16:15	17:34	X X
090331 - S-04-S-25F		17:15		X X
090331 - S-05-S-25F		17:05		X X
090331 - S-06-S-25F		16:44		X X
090331 - S-07-S-25F		16:30		X X
090331 - S-08-S-25F		16:15		X X
090331 - S-09-S-25F		16:00		X X
090331 - S-10-S-25F		15:44	3/31/09	X X
090331 - S-SPLTS - DVS		03/31/09	18:10	-X X
Temp Blank		N/A	N/A	X
Possible Hazard Identification		Sample Disposal		
<input type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison A
<input type="checkbox"/> Unknown		<input type="checkbox"/> Poison B	<input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client
<input type="checkbox"/> Other		<input type="checkbox"/> 21 Days	<input type="checkbox"/> 14 Days	<input type="checkbox"/> Disposal By Lab
<input type="checkbox"/> STD		<input type="checkbox"/> 21 Days	<input type="checkbox"/> 14 Days	<input checked="" type="checkbox"/> Archive For 12 Months longer than 1 month
Turn Around Time Required		QC Requirements (Specify)		
<input type="checkbox"/> 24 Hours		<input type="checkbox"/> 48 Hours	<input type="checkbox"/> 7 Days	<input type="checkbox"/> Other
1. Relinquished By Steve Holshouser		Date 04/02/09	Time 17:00	1. Received By John Hilt
2. Relinquished By		Date []	Time []	2. Received By []
3. Relinquished By		Date []	Time []	3. Received By []
Comments * 12 WFO 1997 Dioxin-like PCB Congeners per agreement with Henck				
DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy				
10 of 485				

**Chain of
Custody Record**

TAI-4124 (1007)

TAL-4124 (1007)

Chain of Custody Record

Temperature on Receipt

Drinking Water? Yes No

THE LEADER IN ENVIRONMENTAL TESTING

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Staffs with the Sample; PINK - Field Copy.

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PEL -

11 of 485

Chain of Custody Record

G030338

TestAmerica

Temperature on Receipt _____

Drinking Water? Yes No

THE LEADER IN ENVIRONMENTAL TESTING

Client Address City Project Name and Location (State) XHF		Project Manager Paul Turek Telephone Number (Area Code)/Fax Number (559) 3816-6151	Date 04/02/09	Chain of Custody Number 108098
State Zip Code 93239		Suite Contact Steve Holsouser Carry/Mail/Number FED EX	Lab Number	Page / of /
Contract/Purchase Order/Quote No. 0943-816-02		Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt	
		*19991 1989a		
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix	Containers & Preservatives
090401 -B18-01-S-RJF	4/1/09	8:50	Aqueous Soil Sed.	Upers NaOH NaCl HCl HNCO HSO4
090401 -B18-02-S-RJF	4/1/09	9:05	X	X
090401 -B18-03-S-RJF	4/1/09	9:20	X	X
090401 -B18-04-S-RJF	4/1/09	9:26	X	X
090401 -B18-05-S-RJF	4/1/09	9:45	X	X
090401 -B18-06-S-RJF	4/1/09	10:08	X	X
090401 -B18-07-S-RJF	4/1/09	10:24	X	X
090401 -B18-08-S-RJF	4/1/09	10:37	X	X
090401 -B18-09-S-RJF	4/1/09	10:55	X	X
090401 -B18-10-S-RJF	4/1/09	11:07	X	X
090401 -B18-FS-5-RJF	4/1/09	11:23	X	X
TEMP BLANK	N/A	N/A	X	
Sample Disposal				
Possible Hazard Identification	<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison A
	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab	<input checked="" type="checkbox"/> Archive For 12 Months longer than 1 month
QC Requirements (Specify)				
Turn Around Time Required				
<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours	<input type="checkbox"/> 7 Days	<input type="checkbox"/> 14 Days	<input type="checkbox"/> 21 Days
1. Relinquished By <i>ST E 2k</i>	Date 04/02/09	Time 1700	1. Received By <i>John Shrop</i>	Date 04/03/09
2. Relinquished By	Date	Time	2. Received By	Date 04/03/09
3. Relinquished By	Date	Time	3. Received By	Date 04/03/09
Comments	*12/1997 WHO Dioxin-like PCB Congeners per agreement with Henkel			
DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy				

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes No

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica

TEL: 4124 (1907)

Client Address	Chemical Waste Management, Inc.	Project Manager	Paul Turek
City	35251 Old Skyline Road	Telephone Number (Area Code)/Fax Number	(559) 386-6151
Project Name and Location (State)	Kettleman City, CA	Site Contact	Steve Holshouser, Karen Dahl
Zip Code	93239	Carrier/Whill Number	F60 EX
Contract/Purchase Order/Quote No. 0742-816-02			

Possible Hazard Identification

Non-Hazard

Flammable

Skin Irritant

Poison B

Unknown

Other

STD

Return To Client

Disposal By Lab

Archive For

12 Months

(A fee may be assessed if samples are retained longer than 1 month)

QC Requirements (Specify)

Turn Around Time Required

24 Hours

48 Hours

7 Days

14 Days

21 Days

Other

STD

Date

Time

1. Received By

Myself

Date

Time

2. Received By

Date

Time

3. Received By

Date

Time

Comments

12/14/01 1997 Dioxin-Like PCB Congeners per agreement with Henck

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client Chemical Waste Management, Inc.	Project Manager Paul Turck	Date 04/02/09	Chain of Custody Number 108095
Address 35051 Old Skyline Road	Telephone Number (Area Code)/Fax Number (559) 386-6151	Lab Number 1	Page 1 of 1
City Kettleman City	Site Contact Steve Holshouser	Analysis (Attach list if more space is needed)	
State CA	Carrier/Mailbox Number FCI EX		
Zip Code 93239	Project Name and Location (State) KHF		
Contract/Purchase Order/Quote No. 0742-816-02			

TestAmerica West Sacramento (916) 373 - 5600

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix	Containers & Preservatives
			Aqueous	Soil
			Air	Sed.
			NaOH	ZnAC
			HCl	NaOH
			HNO3	H2SO4
			Uptake	
DA0401 - SE-01-S - R5F	4/1/09	1535	X	X
DA0401 - SE-02-S - R5F	4/1/09	1528	X	X
DA0401 - SE-03-S - R5F	4/1/09	1517	X	X
DA0401 - SE-04-S - R5F	4/1/09	1505	X	X
DA0401 - SE-05-S - R5F	4/1/09	1452	X	X
DA0401 - SE-06-S - R5F	4/1/09	1435	X	X
DA0401 - SE-07-S - R5F	4/1/09	1423	X	X
DA0401 - SE-08-S - R5F	4/1/09	1413	X	X
DA0401 - SE-09-S - R5F	4/1/09	1403	X	X
DA0401 - SE-10-S - R5F	4/1/09	1350	X	X
DA0401 - Blank	N/A	N/A		

Possible Hazard Identification	Sample Disposal
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable
<input type="checkbox"/> Corrosive	<input type="checkbox"/> Skin Irritant
<input type="checkbox"/> Oxidizer	<input type="checkbox"/> Poison B
<input type="checkbox"/> Unknown	<input type="checkbox"/> Poison A
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> STD
<input type="checkbox"/> Return To Client	
<input type="checkbox"/> Disposal By Lab	
<input checked="" type="checkbox"/> Archive For 13 Months (longer than 1 month)	

OC Requirements (Specify)

Turn Around Time Required

24 Hours 48 Hours 7 Days 14 Days 21 Days 21 Days

1. Received By Steve Holshouser Date 04/02/09 Time 1700

2. Received By Steve Holshouser Date 04/02/09 Time 1700

3. Received By _____ Date _____ Time _____

Date _____ Time _____

Date _____ Time _____

Date _____ Time _____

Comments * 12 h/40 / 997 Dixie-like PCB Coatings per segment with blank

DISTRIBUTION: WHITE - Returned to Client with Report: CANARY - Stays with the Sample: PINK - Field Copy

CLIENT Wenck PM KD LOG # 57784
 LOT# (QUANTIMS ID) CPID030398 QUOTE# 81307 LOCATION WF1 - 8LOOR
AV4D

DATE RECEIVED 4-3-09 TIME RECEIVED 9:35 Initials AB Date 4-3-09

DELIVERED BY FEDEX CA OVERNIGHT CLIENT
 AIRBORNE GOLDENSTATE DHL
 UPS BAX GLOBAL GO-GETTERS
 TAL COURIER VALLEY LOGISTICS MORGAN HILL COURIER
 OTHER

CUSTODY SEAL STATUS INTACT BROKEN N/A

CUSTODY SEAL #(S) Seals

SHIPPING CONTAINER(S) TAL CLIENT N/A

TEMPERATURE RECORD (IN °C) 205 203 IR 4 5 OTHER

COC #(S) 167201, 207, 108094, 98, 92, 95

TEMPERATURE BLANK Observed: _____ Corrected: _____

SAMPLE TEMPERATURE

Observed: Seal temp. Average: Sheet 3 Corrected Average: _____

COLLECTOR'S NAME: Verified from COC Not on COC

pH MEASURED YES ANOMALY N/A

LABLED BY _____

LABELS CHECKED BY _____

PEER REVIEW N/A

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING

WETCHEM N/A

VOA-ENCORES N/A

METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL N/A

COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES N/A

CLOUSEAU TEMPERATURE EXCEEDED (2 °C – 6 °C)⁻¹ N/A

WET ICE BLUE ICE GEL PACK NO COOLING AGENTS USED

PM NOTIFIED

Notes: Soil

*1 Acceptable temperature range for State of Wisconsin samples is $\leq 4^{\circ}\text{C}$.

LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE

CLIENT: Weink LOT# (QUANTIMS ID): G9DR30338TEMPERATURE RECORD (IN °C) IR 4 5 OTHER INITIALS OK DATE 4-3-09COOLER ID 1CUSTODY SEAL STATUS INTACT BROKEN N/ACUSTODY SEAL #(S) 22156, 22186COC #(S) 107207TEMPERATURE BLANK: OBSERVED: 4 CORRECTED: 4

SAMPLE TEMPERATURE:

OBSERVED: 5 AVERAGE: 6 CORRECTED: 6SAMPLES / TESTS (IF NCM REQUIRED):
 COOLER ID 2CUSTODY SEAL STATUS INTACT BROKEN N/ACUSTODY SEAL #(S) 331384, 331394COC #(S) 107205TEMPERATURE BLANK: OBSERVED: 2 CORRECTED: 2

SAMPLE TEMPERATURE:

OBSERVED: 1 AVERAGE: 2 CORRECTED: 2SAMPLES / TESTS (IF NCM REQUIRED):
 COOLER ID 3CUSTODY SEAL STATUS INTACT BROKEN N/ACUSTODY SEAL #(S) 20246, 21216COC #(S) 107203TEMPERATURE BLANK: OBSERVED: 3 CORRECTED: 3

SAMPLE TEMPERATURE:

OBSERVED: 4 AVERAGE: 5 CORRECTED: 5SAMPLES / TESTS (IF NCM REQUIRED):

LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE.

QA-185 1/06 DAW, Page 2

CLIENT: Wenck LOT# (QUANTIMS ID): 690830338TEMPERATURE RECORD (IN °C) IR 4 5 OTHER _____INITIALS AS DATE 4-3-09COOLER ID 4CUSTODY SEAL STATUS INTACT BROKEN N/ACUSTODY SEAL #(S) 22146, 22494COC #(S) 108097TEMPERATURE BLANK: OBSERVED: 2 CORRECTED: 2

SAMPLE TEMPERATURE:

OBSERVED: 5 5 6 AVERAGE: 5 CORRECTED: 5

SAMPLES / TESTS (IF NCM REQUIRED): _____

COOLER ID 5CUSTODY SEAL STATUS INTACT BROKEN N/ACUSTODY SEAL #(S) 587789, 587769COC #(S) 108099TEMPERATURE BLANK: OBSERVED: 2 CORRECTED: 2

SAMPLE TEMPERATURE:

OBSERVED: 5 6 7 AVERAGE: 6 CORRECTED: 6

SAMPLES / TESTS (IF NCM REQUIRED): _____

COOLER ID 8CUSTODY SEAL STATUS INTACT BROKEN N/ACUSTODY SEAL #(S) 22226, 22196COC #(S) 107201TEMPERATURE BLANK: OBSERVED: 3 CORRECTED: 3

SAMPLE TEMPERATURE:

OBSERVED: 4 4 5 AVERAGE: 4 CORRECTED: 4

SAMPLES / TESTS (IF NCM REQUIRED): _____

LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE.

QA-185 1/06 DAW, Page 2

CLIENT: Weuck LOT# (QUANTIMS ID): G9D030338

TEMPERATURE RECORD (IN °C)	IR 4 <input type="checkbox"/>	5 <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	INITIALS <u>AE</u>	DATE <u>4/3/9</u>
----------------------------	-------------------------------	---------------------------------------	--------------------------------	--------------------	-------------------

 COOLER ID 7

 CUSTODY SEAL STATUS INTACT BROKEN N/A

 CUSTODY SEAL #(S) 22170, 22200

 COC #(S) 108094

 TEMPERATURE BLANK: OBSERVED: 3 CORRECTED: 3

SAMPLE TEMPERATURE:

 OBSERVED: 4 5 6 AVERAGE: 5 CORRECTED: 5

SAMPLES / TESTS (IF NCM REQUIRED):

 COOLER ID 8

 CUSTODY SEAL STATUS INTACT BROKEN N/A

 CUSTODY SEAL #(S) 331404, 472368

 COC #(S) 108095

 TEMPERATURE BLANK: OBSERVED: 3 CORRECTED: 3

SAMPLE TEMPERATURE:

 OBSERVED: 3 4 5 AVERAGE: 4 CORRECTED: 4

SAMPLES / TESTS (IF NCM REQUIRED):

 COOLER ID 9

 CUSTODY SEAL STATUS INTACT BROKEN N/A

 CUSTODY SEAL #(S) 22286, 22254

 COC #(S) 107204

 TEMPERATURE BLANK: OBSERVED: 3 CORRECTED: 3

SAMPLE TEMPERATURE:

 OBSERVED: 5 6 7 AVERAGE: 6 CORRECTED: 6

SAMPLES / TESTS (IF NCM REQUIRED):

LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE.

QA-185 1/06 DAW, Page 2

CLIENT: WenckLOT# (QUANTIMS ID): G9D030338

TEMPERATURE RECORD (IN °C)

IR 4 5 OTHERINITIALS ASDATE 4-3-09COOLER ID 10CUSTODY SEAL STATUS INTACT BROKEN N/ACUSTODY SEAL #(S) 22246, 22236COC #(S) 108098TEMPERATURE BLANK: OBSERVED: 4 CORRECTED: 4

SAMPLE TEMPERATURE:

OBSERVED: 5 AVERAGE: 6 CORRECTED: 6SAMPLES / TESTS (IF NCM REQUIRED):

COOLER ID 11CUSTODY SEAL STATUS INTACT BROKEN N/ACUSTODY SEAL #(S) 563045, 492277COC #(S) 108092TEMPERATURE BLANK: OBSERVED: 2 CORRECTED: 2

SAMPLE TEMPERATURE:

OBSERVED: 4 AVERAGE: 5 CORRECTED: 5SAMPLES / TESTS (IF NCM REQUIRED):

COOLER ID 12CUSTODY SEAL STATUS INTACT BROKEN N/ACUSTODY SEAL #(S) 563042, 562632COC #(S) 107000TEMPERATURE BLANK: OBSERVED: 2 CORRECTED: 2

SAMPLE TEMPERATURE:

OBSERVED: 5 AVERAGE: 6 CORRECTED: 6SAMPLES / TESTS (IF NCM REQUIRED):

LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE.

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Bottle Lot Inventory

Lot

ID:

69D030338

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*																				
VOAh*																				
AGB																				
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
AGJ																				
500AGJ	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
CGJ																				
500CGJ																				
250CGJ																				
125CGJ																				
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

h = hydrochloric acid s = sulfuric acid na = sodium hydroxide n = nitric acid zn = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

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LEAVE NO SPACES BLANK. USE "NA" IF NOT APPLICABLE

G9D030338

TestAmerica West Sacramento (916) 373 - 5600

20 of 485

SOLID, 1668, WHO PCB congeners

Wenck Associates, Inc.

Client Sample ID: 090331-SW-01-S TO 10-S-COMPOSITE

Trace Level Organic Compounds

Lot-Sample #....: G9D030338-001 Work Order #....: K9LD21AC Matrix.....: SOLID
 Date Sampled....: 03/31/09 Date Received...: 04/03/09
 Prep Date.....: 04/17/09 Analysis Date...: 04/22/09
 Prep Batch #....: 9106484
 Dilution Factor: 5
 % Moisture.....: 2.2

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
PCB 77 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 81 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 105 (BZ)	11 C	10	pg/g	EPA-14 1668
PCB 114 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 118 (BZ)	15 C,B	10	pg/g	EPA-14 1668
PCB 123 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 126 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 156 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 157 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 167 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 169 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 189 (BZ)	ND	10	pg/g	EPA-14 1668

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C12-PCB 77	99	(25 - 150)
13C12-PCB 81	93	(25 - 150)
13C12-PCB 118	105	(25 - 150)
13C12-PCB 114	93	(25 - 150)
13C12-PCB 105	92	(25 - 150)
13C12-PCB 126	90	(25 - 150)
13C12-PCB 167	140	(25 - 150)
13C12-PCB 156	142	(25 - 150)
13C12-PCB 157	143	(25 - 150)
13C12-PCB 169	151 *	(25 - 150)
13C12-PCB 189	152 *	(25 - 150)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight

C Co-eluting isomer

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

* Surrogate recovery is outside stated control limits

Wenck Associates, Inc.

Client Sample ID: 090331-NE-01-S TO 10-S COMPOSITE

Trace Level Organic Compounds

Lot-Sample #...: G9D030338-002 Work Order #...: K9LD31AC Matrix.....: SOLID
 Date Sampled...: 03/31/09 Date Received...: 04/03/09
 Prep Date.....: 04/17/09 Analysis Date...: 04/22/09
 Prep Batch #...: 9106484
 Dilution Factor: 5
 % Moisture.....: 2.4

<u>PARAMETER</u>	<u>RESULT</u>	DETECTION		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
PCB 77 (BZ)	ND G	15	pg/g	EPA-14 1668
PCB 81 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 105 (BZ)	65 C	10	pg/g	EPA-14 1668
PCB 114 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 118 (BZ)	100 C,B	10	pg/g	EPA-14 1668
PCB 123 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 126 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 156 (BZ)	29	10	pg/g	EPA-14 1668
PCB 157 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 167 (BZ)	16	10	pg/g	EPA-14 1668
PCB 169 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 189 (BZ)	ND	10	pg/g	EPA-14 1668

<u>INTERNAL STANDARDS</u>	<u>PERCENT</u>	RECOVERY	
		<u>RECOVERY</u>	<u>LIMITS</u>
13C12-PCB 77	28	(25 - 150)	
13C12-PCB 81	29	(25 - 150)	
13C12-PCB 118	27	(25 - 150)	
13C12-PCB 114	25 *	(25 - 150)	
13C12-PCB 105	24 *	(25 - 150)	
13C12-PCB 126	26	(25 - 150)	
13C12-PCB 167	30	(25 - 150)	
13C12-PCB 156	31	(25 - 150)	
13C12-PCB 157	30	(25 - 150)	
13C12-PCB 169	38	(25 - 150)	
13C12-PCB 189	32	(25 - 150)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight

G Elevated reporting limit The reporting limit is elevated due to matrix interference.

C Co-cluting isomer

B Method blank contamination The associated method blank contains the target analyte at a reportable level

* Surrogate recovery is outside stated control limits.

Wenck Associates, Inc.

Client Sample ID: 090331-N-01-S TO 10-S-COMPOSITE

Trace Level Organic Compounds

Lot-Sample #...: G9D030338-003 Work Order #...: K9LD41AC Matrix.....: SOLID
 Date Sampled...: 03/31/09 Date Received...: 04/03/09
 Prep Date.....: 04/17/09 Analysis Date...: 04/22/09
 Prep Batch #...: 9106484
 Dilution Factor: 5
 % Moisture.....: 0.77

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
PCB 77 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 81 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 105 (BZ)	12 C	10	pg/g	EPA-14 1668
PCB 114 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 118 (BZ)	19 C,B	10	pg/g	EPA-14 1668
PCB 123 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 126 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 156 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 157 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 167 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 169 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 189 (BZ)	ND	10	pg/g	EPA-14 1668

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C12-PCB 77	106	(25 - 150)
13C12-PCB 81	108	(25 - 150)
13C12-PCB 118	89	(25 - 150)
13C12-PCB 114	93	(25 - 150)
13C12-PCB 105	93	(25 - 150)
13C12-PCB 126	102	(25 - 150)
13C12-PCB 167	151 *	(25 - 150)
13C12-PCB 156	150	(25 - 150)
13C12-PCB 157	152 *	(25 - 150)
13C12-PCB 169	158 *	(25 - 150)
13C12-PCB 189	155 *	(25 - 150)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight

C Co-eluting isomer

B Method blank contamination The associated method blank contains the target analyte at a reportable level

* Surrogate recovery is outside stated control limits.

Wenck Associates, Inc.

Client Sample ID: 090331-S-01-S TO 10-S-COMPOSITE

Trace Level Organic Compounds

Lot-Sample #....: G9D030338-004 Work Order #....: K9LD51AC Matrix.....: SOLID
Date Sampled....: 03/31/09 Date Received...: 04/03/09
Prep Date.....: 04/17/09 Analysis Date...: 04/22/09
Prep Batch #....: 9106484
Dilution Factor: 5
% Moisture.....: 0.96

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 77 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 81 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 105 (BZ)	21 C	10	pg/g	EPA-14 1668
PCB 114 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 118 (BZ)	29 C,B	10	pg/g	EPA-14 1668
PCB 123 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 126 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 156 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 157 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 167 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 169 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 189 (BZ)	ND	10	pg/g	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 77	104	(25 - 150)
13C12-PCB 81	104	(25 - 150)
13C12-PCB 118	94	(25 - 150)
13C12-PCB 114	87	(25 - 150)
13C12-PCB 105	89	(25 - 150)
13C12-PCB 126	96	(25 - 150)
13C12-PCB 167	144	(25 - 150)
13C12-PCB 156	145	(25 - 150)
13C12-PCB 157	141	(25 - 150)
13C12-PCB 169	158 *	(25 - 150)
13C12-PCB 189	149	(25 - 150)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight

C Co-eluting isomer

B Method blank contamination The associated method blank contains the target analyte at a reportable level

* Surrogate recovery is outside stated control limits.

Wenck Associates, Inc.

Client Sample ID: 090401-NW-01-S TO 10-S-COMPOSITE

Trace Level Organic Compounds

Lot-Sample #....: G9D030338-005 Work Order #....: K9LD61AC Matrix.....: SOLID
 Date Sampled....: 04/01/09 Date Received...: 04/03/09
 Prep Date.....: 04/17/09 Analysis Date...: 04/22/09
 Prep Batch #....: 9106484
 Dilution Factor: 5
 % Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	DETECTION		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
PCB 77 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 81 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 105 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 114 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 118 (BZ)	18 C,B	10	pg/g	EPA-14 1668
PCB 123 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 126 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 156 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 157 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 167 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 169 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 189 (BZ)	ND	10	pg/g	EPA-14 1668

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	RECOVERY
		<u>LIMITS</u>
13C12-PCB 77	102	(25 - 150)
13C12-PCB 81	98	(25 - 150)
13C12-PCB 118	90	(25 - 150)
13C12-PCB 114	94	(25 - 150)
13C12-PCB 105	97	(25 - 150)
13C12-PCB 126	106	(25 - 150)
13C12-PCB 167	146	(25 - 150)
13C12-PCB 156	155 *	(25 - 150)
13C12-PCB 157	149	(25 - 150)
13C12-PCB 169	163 *	(25 - 150)
13C12-PCB 189	161 *	(25 - 150)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight

C Co-eluting isomer

B Method blank contamination The associated method blank contains the target analyte at a reportable level

* Surrogate recovery is outside stated control limits

Wenck Associates, Inc.

Client Sample ID: 090401-B18-01-S TO 10-S-COMPOSITE

Trace Level Organic Compounds

Lot-Sample #....: G9D030338-006 Work Order #....: K9LD71AC Matrix.....: SOLID
 Date Sampled...: 04/01/09 Date Received...: 04/03/09
 Prep Date.....: 04/17/09 Analysis Date...: 04/22/09
 Prep Batch #....: 9106484
 Dilution Factor: 5
 % Moisture.....: 2.1

<u>PARAMETER</u>	<u>RESULT</u>	DETECTION		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
PCB 77 (BZ)	ND G	18	pg/g	EPA-14 1668
PCB 81 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 105 (BZ)	62 C	10	pg/g	EPA-14 1668
PCB 114 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 118 (BZ)	85 C,B	10	pg/g	EPA-14 1668
PCB 123 (BZ)	ND G	15	pg/g	EPA-14 1668
PCB 126 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 156 (BZ)	31	10	pg/g	EPA-14 1668
PCB 157 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 167 (BZ)	13	10	pg/g	EPA-14 1668
PCB 169 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 189 (BZ)	ND	10	pg/g	EPA-14 1668

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	RECOVERY	
		<u>LIMITS</u>	
13C12-PCB 77	86	(25 - 150)	
13C12-PCB 81	85	(25 - 150)	
13C12-PCB 118	98	(25 - 150)	
13C12-PCB 114	73	(25 - 150)	
13C12-PCB 105	74	(25 - 150)	
13C12-PCB 126	83	(25 - 150)	
13C12-PCB 167	114	(25 - 150)	
13C12-PCB 156	117	(25 - 150)	
13C12-PCB 157	115	(25 - 150)	
13C12-PCB 169	119	(25 - 150)	
13C12-PCB 189	115	(25 - 150)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

C Co-eluting isomer

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

Wenck Associates, Inc.

Client Sample ID: 090401-W-01-S TO 10-S-COMPOSITE

Trace Level Organic Compounds

Lot-Sample #....: G9D030338-007 Work Order #....: K9LD81AC Matrix.....: SOLID
 Date Sampled....: 04/01/09 Date Received...: 04/03/09
 Prep Date.....: 04/17/09 Analysis Date...: 04/24/09
 Prep Batch #....: 9106484
 Dilution Factor: 5
 % Moisture.....: 1.8

<u>PARAMETER</u>	<u>RESULT</u>	DETECTION		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
PCB 77 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 81 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 105 (BZ)	10 C	10	pg/g	EPA-14 1668
PCB 114 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 118 (BZ)	19 C,B	10	pg/g	EPA-14 1668
PCB 123 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 126 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 156 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 157 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 167 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 169 (BZ)	ND	10	pg/g	EPA-14 1668
PCB 189 (BZ)	ND	10	pg/g	EPA-14 1668

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	RECOVERY
		<u>LIMITS</u>
13C12-PCB 77	101	(25 - 150)
13C12-PCB 81	98	(25 - 150)
13C12-PCB 118	87	(25 - 150)
13C12-PCB 114	91	(25 - 150)
13C12-PCB 105	94	(25 - 150)
13C12-PCB 126	106	(25 - 150)
13C12-PCB 167	115	(25 - 150)
13C12-PCB 156	120	(25 - 150)
13C12-PCB 157	119	(25 - 150)
13C12-PCB 169	127	(25 - 150)
13C12-PCB 189	123	(25 - 150)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight

C Co-eluting isomer

B Method blank contamination The associated method blank contains the target analyte at a reportable level.

Wenck Associates, Inc.

Client Sample ID: 090401-SE-01-S TO 10-S-COMPOSITE

Trace Level Organic Compounds

Lot-Sample #....: G9D030338-008 Work Order #....: K9LD91AC Matrix.....: SOLID
 Date Sampled....: 04/01/09 Date Received...: 04/03/09
 Prep Date.....: 04/17/09 Analysis Date...: 04/30/09
 Prep Batch #....: 9106484
 Dilution Factor: 1
 % Moisture.....: 8.5

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
PCB 77 (BZ)	ND G	10	pg/g	EPA-14 1668
PCB 81 (BZ)	ND	2.2	pg/g	EPA-14 1668
PCB 105 (BZ)	33 C	2.2	pg/g	EPA-14 1668
PCB 114 (BZ)	ND	2.2	pg/g	EPA-14 1668
PCB 118 (BZ)	46 C,B	2.2	pg/g	EPA-14 1668
PCB 123 (BZ)	ND G	3.6	pg/g	EPA-14 1668
PCB 126 (BZ)	ND	2.2	pg/g	EPA-14 1668
PCB 156 (BZ)	10	2.2	pg/g	EPA-14 1668
PCB 157 (BZ)	ND	2.2	pg/g	EPA-14 1668
PCB 167 (BZ)	2.7	2.2	pg/g	EPA-14 1668
PCB 169 (BZ)	ND	2.2	pg/g	EPA-14 1668
PCB 189 (BZ)	2.6 Q	2.2	pg/g	EPA-14 1668

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C12-PCB 77	106	(25 - 150)
13C12-PCB 81	106	(25 - 150)
13C12-PCB 118	91	(25 - 150)
13C12-PCB 114	94	(25 - 150)
13C12-PCB 105	98	(25 - 150)
13C12-PCB 126	103	(25 - 150)
13C12-PCB 167	141	(25 - 150)
13C12-PCB 156	156 *	(25 - 150)
13C12-PCB 157	157 *	(25 - 150)
13C12-PCB 169	167 *	(25 - 150)
13C12-PCB 189	147	(25 - 150)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight

G Elevated reporting limit The reporting limit is elevated due to matrix interference

C Co-eluting isomer

B Method blank contamination The associated method blank contains the target analyte at a reportable level.

Q Estimated maximum possible concentration (EMPC)

* Surrogate recovery is outside stated control limits

Wenck Associates, Inc.

Client Sample ID: 090401-SE-01 TO 10-S-RJF-COMPOSITE DUP

Trace Level Organic Compounds

Lot-Sample #....: G9D030338-008 Work Order #....: K9LD91AD Matrix.....: SOLID
 Date Sampled....: 04/01/09 Date Received...: 04/03/09
 Prep Date.....: 04/17/09 Analysis Date...: 04/30/09
 Prep Batch #....: 9106484
 Dilution Factor: 1
 % Moisture.....: 8.5

PARAMETER	RESULT	DETECTION		METHOD
		LIMIT	UNITS	
PCB 77 (BZ)	ND G	11	pg/g	EPA-14 1668
PCB 81 (BZ)	ND	2.2	pg/g	EPA-14 1668
PCB 105 (BZ)	28 C	2.2	pg/g	EPA-14 1668
PCB 114 (BZ)	ND	2.2	pg/g	EPA-14 1668
PCB 118 (BZ)	51 C,B	2.2	pg/g	EPA-14 1668
PCB 123 (BZ)	ND G	5.4	pg/g	EPA-14 1668
PCB 126 (BZ)	ND	2.2	pg/g	EPA-14 1668
PCB 156 (BZ)	13	2.2	pg/g	EPA-14 1668
PCB 157 (BZ)	ND	2.2	pg/g	EPA-14 1668
PCB 167 (BZ)	5.2	2.2	pg/g	EPA-14 1668
PCB 169 (BZ)	ND	2.2	pg/g	EPA-14 1668
PCB 189 (BZ)	4.3	2.2	pg/g	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY	
		LIMITS	
13C12-PCB 77	104	(25 - 150)	
13C12-PCB 81	107	(25 - 150)	
13C12-PCB 118	86	(25 - 150)	
13C12-PCB 114	90	(25 - 150)	
13C12-PCB 105	92	(25 - 150)	
13C12-PCB 126	97	(25 - 150)	
13C12-PCB 167	141	(25 - 150)	
13C12-PCB 156	146	(25 - 150)	
13C12-PCB 157	148	(25 - 150)	
13C12-PCB 169	157 *	(25 - 150)	
13C12-PCB 189	144	(25 - 150)	

NOTE (S) :

Results and reporting limits have been adjusted for dry weight

G Elevated reporting limit The reporting limit is elevated due to matrix interference

C Co-eluting isomer

B Method blank contamination The associated method blank contains the target analyte at a reportable level.

* Surrogate recovery is outside stated control limits

QC DATA ASSOCIATION SUMMARY

G9D030338

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
002	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
003	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
004	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
005	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
006	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
007	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
008	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #....: G9D030338
MB Lot-Sample #: G9D160000-484
Analysis Date...: 04/21/09
Dilution Factor: 1

Work Order #....: K98KC1AA
Prep Date.....: 04/17/09
Prep Batch #....: 9106484

Matrix.....: SOLID

PARAMETER	RESULT	DETECTION		
		LIMIT	UNITS	METHOD
PCB 77 (BZ)	ND	2.0	pg/g	EPA-14 1668
PCB 81 (BZ)	ND	2.0	pg/g	EPA-14 1668
PCB 105 (BZ)	ND	2.0	pg/g	EPA-14 1668
PCB 114 (BZ)	ND	2.0	pg/g	EPA-14 1668
PCB 118 (BZ)	2.3 C	2.0	pg/g	EPA-14 1668
PCB 123 (BZ)	ND	2.0	pg/g	EPA-14 1668
PCB 126 (BZ)	ND	2.0	pg/g	EPA-14 1668
PCB 156 (BZ)	ND	2.0	pg/g	EPA-14 1668
PCB 157 (BZ)	ND	2.0	pg/g	EPA-14 1668
PCB 167 (BZ)	ND	2.0	pg/g	EPA-14 1668
PCB 169 (BZ)	ND	2.0	pg/g	EPA-14 1668
PCB 189 (BZ)	ND	2.0	pg/g	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY	
		LIMITS	
13C12-PCB 77	79	(25	- 150)
13C12-PCB 81	78	(25	- 150)
13C12-PCB 118	67	(25	- 150)
13C12-PCB 114	70	(25	- 150)
13C12-PCB 105	74	(25	- 150)
13C12-PCB 126	86	(25	- 150)
13C12-PCB 167	102	(25	- 150)
13C12-PCB 156	114	(25	- 150)
13C12-PCB 157	109	(25	- 150)
13C12-PCB 169	124	(25	- 150)
13C12-PCB 189	118	(25	- 150)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results

C Co-eluting isomer.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #....: G9D030338 Work Order #....: K98KC1AC Matrix.....: SOLID
 LCS Lot-Sample#: G9D160000-484
 Prep Date.....: 04/17/09 Analysis Date...: 04/21/09
 Prep Batch #....: 9106484
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>METHOD</u>
PCB 77 (BZ)	200	229	pg/g	114	EPA-14 1668
PCB 81 (BZ)	200	233	pg/g	116	EPA-14 1668
PCB 105 (BZ)	200	260	pg/g	130	EPA-14 1668
PCB 114 (BZ)	200	259	pg/g	129	EPA-14 1668
PCB 118 (BZ)	200	259	pg/g	130	EPA-14 1668
PCB 123 (BZ)	200	255	pg/g	127	EPA-14 1668
PCB 126 (BZ)	200	252	pg/g	126	EPA-14 1668
PCB 156 (BZ)	200	225	pg/g	113	EPA-14 1668
PCB 157 (BZ)	200	230	pg/g	115	EPA-14 1668
PCB 167 (BZ)	200	246	pg/g	123	EPA-14 1668
PCB 169 (BZ)	200	225	pg/g	113	EPA-14 1668
PCB 189 (BZ)	200	208	pg/g	104	EPA-14 1668

<u>INTERNAL STANDARD</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C12-PCB 77	77	(25 - 150)
13C12-PCB 81	73	(25 - 150)
13C12-PCB 118	60	(25 - 150)
13C12-PCB 114	66	(25 - 150)
13C12-PCB 105	68	(25 - 150)
13C12-PCB 126	80	(25 - 150)
13C12-PCB 167	103	(25 - 150)
13C12-PCB 156	111	(25 - 150)
13C12-PCB 157	108	(25 - 150)
13C12-PCB 169	122	(25 - 150)
13C12-PCB 189	117	(25 - 150)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: G9D030338 **Work Order #...**: K98KC1AC **Matrix.....**: SOLID
LCS Lot-Sample#: G9D160000-484
Prep Date.....: 04/17/09 **Analysis Date..**: 04/21/09
Prep Batch #...: 9106484
Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
PCB 77 (BZ)	114	(50 - 150)	EPA-14 1668
PCB 81 (BZ)	116	(50 - 150)	EPA-14 1668
PCB 105 (BZ)	130	(50 - 150)	EPA-14 1668
PCB 114 (BZ)	129	(50 - 150)	EPA-14 1668
PCB 118 (BZ)	130	(50 - 150)	EPA-14 1668
PCB 123 (BZ)	127	(50 - 150)	EPA-14 1668
PCB 126 (BZ)	126	(50 - 150)	EPA-14 1668
PCB 156 (BZ)	113	(50 - 150)	EPA-14 1668
PCB 157 (BZ)	115	(50 - 150)	EPA-14 1668
PCB 167 (BZ)	123	(50 - 150)	EPA-14 1668
PCB 169 (BZ)	113	(50 - 150)	EPA-14 1668
PCB 189 (BZ)	104	(50 - 150)	EPA-14 1668

<u>INTERNAL STANDARD</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>LIMITS</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
13C12-PCB 77	77		(25 - 150)
13C12-PCB 81	73		(25 - 150)
13C12-PCB 118	60		(25 - 150)
13C12-PCB 114	66		(25 - 150)
13C12-PCB 105	68		(25 - 150)
13C12-PCB 126	80		(25 - 150)
13C12-PCB 167	103		(25 - 150)
13C12-PCB 156	111		(25 - 150)
13C12-PCB 157	108		(25 - 150)
13C12-PCB 169	122		(25 - 150)
13C12-PCB 189	117		(25 - 150)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #....: G9D030338 Work Order #....: K9LD71AD-MS Matrix.....: SOLID
 MS Lot-Sample #: G9D030338-006 K9LD71AE-MSD
 Date Sampled....: 04/01/09 Date Received...: 04/03/09
 Prep Date.....: 04/17/09 Analysis Date...: 04/22/09
 Prep Batch #....: 9106484
 Dilution Factor: 5 % Moisture.....: 2.1

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT			METHOD
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	
PCB 77 (BZ)	ND	204	259	pg/g	127		EPA-14 1668
	ND	204	260	pg/g	127	0.23	EPA-14 1668
PCB 81 (BZ)	ND	204	236	pg/g	115		EPA-14 1668
	ND	204	230	pg/g	112	2.5	EPA-14 1668
PCB 105 (BZ)	62	204	348	pg/g	140	C	EPA-14 1668
	62	204	330	pg/g	131	C	5.2
PCB 114 (BZ)	ND	204	266	pg/g	130		EPA-14 1668
	ND	204	263	pg/g	129	1.3	EPA-14 1668
PCB 118 (BZ)	85	204	349	pg/g	129	C	EPA-14 1668
	85	204	360	pg/g	134	C	3.0
PCB 123 (BZ)	ND	204	286	pg/g	140		EPA-14 1668
	ND	204	273	pg/g	133	4.9	EPA-14 1668
PCB 126 (BZ)	ND	204	258	pg/g	126		EPA-14 1668
	ND	204	248	pg/g	121	4.1	EPA-14 1668
PCB 156 (BZ)	31	204	275	pg/g	119		EPA-14 1668
	31	204	264	pg/g	114	4.0	EPA-14 1668
PCB 157 (BZ)	ND	204	236	pg/g	116		EPA-14 1668
	ND	204	225	pg/g	110	4.8	EPA-14 1668
PCB 167 (BZ)	13	204	231	pg/g	107		EPA-14 1668
	13	204	246	pg/g	114	6.1	EPA-14 1668
PCB 169 (BZ)	ND	204	226	pg/g	111		EPA-14 1668
	ND	204	219	pg/g	107	3.5	EPA-14 1668
PCB 189 (BZ)	ND	204	219	pg/g	107		EPA-14 1668
	ND	204	209	pg/g	102	4.8	EPA-14 1668

INTERNAL STANDARDS	PERCENT	RECOVERY	LIMITS
	RECOVERY		
13C12-PCB 77	97		(25 - 150)
	91		(25 - 150)
13C12-PCB 81	98		(25 - 150)
	94		(25 - 150)
13C12-PCB 118	95		(25 - 150)
	88		(25 - 150)
13C12-PCB 114	84		(25 - 150)
	78		(25 - 150)
13C12-PCB 105	84		(25 - 150)
	79		(25 - 150)
13C12-PCB 126	93		(25 - 150)
	91		(25 - 150)

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MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #....: G9D030338 Work Order #....: K9LD71AD-MS Matrix.....: SOLID
MS Lot-Sample #: G9D030338-006 K9LD71AE-MSD

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C12-PCB 167	133	(25 - 150)
	132	(25 - 150)
13C12-PCB 156	137	(25 - 150)
	137	(25 - 150)
13C12-PCB 157	132	(25 - 150)
	132	(25 - 150)
13C12-PCB 169	140	(25 - 150)
	137	(25 - 150)
13C12-PCB 189	132	(25 - 150)
	131	(25 - 150)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight

C Co-eluting isomer.

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #....: G9D030338	Work Order #....: K9LD71AD-MS	Matrix.....: SOLID
MS Lot-Sample #: G9D030338-006		K9LD71AE-MSD
Date Sampled....: 04/01/09	Date Received..: 04/03/09	
Prep Date.....: 04/17/09	Analysis Date...: 04/22/09	
Prep Batch #....: 9106484		
Dilution Factor: 5	% Moisture.....: 2.1	

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
PCB 77 (BZ)	127	(50 - 150)	0.23	(0-50)	EPA-14 1668
	127	(50 - 150)			EPA-14 1668
PCB 81 (BZ)	115	(50 - 150)	2.5	(0-50)	EPA-14 1668
	112	(50 - 150)			EPA-14 1668
PCB 105 (BZ)	140 C	(50 - 150)	5.2	(0-50)	EPA-14 1668
	131 C	(50 - 150)			EPA-14 1668
PCB 114 (BZ)	130	(50 - 150)	1.3	(0-50)	EPA-14 1668
	129	(50 - 150)			EPA-14 1668
PCB 118 (BZ)	129 C	(50 - 150)	3.0	(0-50)	EPA-14 1668
	134 C	(50 - 150)			EPA-14 1668
PCB 123 (BZ)	140	(50 - 150)	4.9	(0-50)	EPA-14 1668
	133	(50 - 150)			EPA-14 1668
PCB 126 (BZ)	126	(50 - 150)	4.1	(0-50)	EPA-14 1668
	121	(50 - 150)			EPA-14 1668
PCB 156 (BZ)	119	(50 - 150)	4.0	(0-50)	EPA-14 1668
	114	(50 - 150)			EPA-14 1668
PCB 157 (BZ)	116	(50 - 150)	4.8	(0-50)	EPA-14 1668
	110	(50 - 150)			EPA-14 1668
PCB 167 (BZ)	107	(50 - 150)	6.1	(0-50)	EPA-14 1668
	114	(50 - 150)			EPA-14 1668
PCB 169 (BZ)	111	(50 - 150)	3.5	(0-50)	EPA-14 1668
	107	(50 - 150)			EPA-14 1668
PCB 189 (BZ)	107	(50 - 150)	4.8	(0-50)	EPA-14 1668
	102	(50 - 150)			EPA-14 1668

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C12-PCB 77	97	(25 - 150)
	91	(25 - 150)
13C12-PCB 81	98	(25 - 150)
	94	(25 - 150)
13C12-PCB 118	95	(25 - 150)
	88	(25 - 150)
13C12-PCB 114	84	(25 - 150)
	78	(25 - 150)
13C12-PCB 105	84	(25 - 150)
	79	(25 - 150)
13C12-PCB 126	93	(25 - 150)
	91	(25 - 150)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #....: G9D030338 Work Order #....: K9LD71AD-MS Matrix.....: SOLID
MS Lot-Sample #: G9D030338-006 K9LD71AE-MSD

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C12-PCB 167	133	(25 - 150)
	132	(25 - 150)
13C12-PCB 156	137	(25 - 150)
	137	(25 - 150)
13C12-PCB 157	132	(25 - 150)
	132	(25 - 150)
13C12-PCB 169	140	(25 - 150)
	137	(25 - 150)
13C12-PCB 189	132	(25 - 150)
	131	(25 - 150)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight

C Co-eluting isomer

SAMPLE DUPLICATE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #....: G9D030338 Work Order #....: K9LD91AC -SMP Matrix.....: SOLID
 SD Lot-Sample #: G9D030338-008 K9LD91AD -DUP
 Date Sampled....: 04/01/09 Date Received...: 04/03/09
 Prep Date.....: 04/17/09 Analysis Date...: 04/30/09
 Prep Batch #....: 9106484
 Dilution Factor: 1
 % Moisture.....: 8.5

PARAMETER	SAMPLE	DUPLICATE	UNITS	RPD	LIMIT	METHOD
	RESULT	RESULT				
PCB 77 (BZ)	ND	ND	pg/g	0	(0-50)	EPA-14 1668
PCB 81 (BZ)	ND	ND	pg/g	0	(0-50)	EPA-14 1668
PCB 105 (BZ)	33 C	28 C	pg/g	16	(0-50)	EPA-14 1668
PCB 114 (BZ)	ND	ND	pg/g	0	(0-50)	EPA-14 1668
PCB 118 (BZ)	46 C,B	51 C,B	pg/g	12	(0-50)	EPA-14 1668
PCB 123 (BZ)	ND	ND	pg/g	0	(0-50)	EPA-14 1668
PCB 126 (BZ)	ND	ND	pg/g	0	(0-50)	EPA-14 1668
PCB 156 (BZ)	10	13	pg/g	24	(0-50)	EPA-14 1668
PCB 157 (BZ)	ND	ND	pg/g	0	(0-50)	EPA-14 1668
PCB 167 (BZ)	2.7	5.2	pg/g	65	(0-50)	EPA-14 1668
PCB 169 (BZ)	ND	ND	pg/g	0	(0-50)	EPA-14 1668
PCB 189 (BZ)	2.6 Q	4.3	pg/g	49	(0-50)	EPA-14 1668

SURROGATE RECOVERY	SAMPLE %	DUPLICATE %	RECOVERY LIMITS
	RECOVERY	RECOVERY	
13C12-PCB 77	106	104	(25 - 150)
13C12-PCB 81	106	107	(25 - 150)
13C12-PCB 118	91	86	(25 - 150)
13C12-PCB 114	94	90	(25 - 150)
13C12-PCB 105	98	92	(25 - 150)
13C12-PCB 126	103	97	(25 - 150)
13C12-PCB 167	141	141	(25 - 150)
13C12-PCB 156	156 *	146	(25 - 150)
13C12-PCB 157	157 *	148	(25 - 150)
13C12-PCB 169	167 *	157	(25 - 150)
13C12-PCB 189	147	144	(25 - 150)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results

Results and reporting limits have been adjusted for dry weight

C Co-eluting isomer

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Q Estimated maximum possible concentration (EMPC)

* Surrogate recovery is outside stated control limits

SOLID, D 2216-90, Percent Moisture

Wenck Associates, Inc.

Client Sample ID: 090331-SW-01-S TO 10-S-COMPOSITE

General Chemistry

Lot-Sample #....: G9D030338-001 Work Order #....: K9LD2 Matrix.....: SOLID
Date Sampled...: 03/31/09 Date Received..: 04/03/09
% Moisture.....: 2.2

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	2.2	0.10	%	ASTM D 2216-90	04/28-04/29/09	9118505

Dilution Factor: 1

Wenck Associates, Inc.

Client Sample ID: 090331-NE-01-S TO 10-S COMPOSITE

General Chemistry

Lot-Sample #....: G9D030338~002 Work Order #....: K9LD3 Matrix.....: SOLID
Date Sampled...: 03/31/09 Date Received...: 04/03/09
% Moisture.....: 2.4

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	2.4	0.10	%	ASTM D 2216-90	04/28-04/29/09	9118505

Dilution Factor: 1

Wenck Associates, Inc.

Client Sample ID: 090331-N-01-S TO 10-S-COMPOSITE

General Chemistry

Lot-Sample #....: G9D030338-003 Work Order #....: K9LD4 Matrix.....: SOLID
Date Sampled...: 03/31/09 Date Received...: 04/03/09
% Moisture.....: 0.77

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	0.78	0.10	%	ASTM D 2216-90	04/28-04/29/09	9118505

Dilution Factor: 1

Wenck Associates, Inc.

Client Sample ID: 090331-S-01-S TO 10-S-COMPOSITE

General Chemistry

Lot-Sample #....: G9D030338-004 Work Order #....: K9LD5 Matrix.....: SOLID
Date Sampled....: 03/31/09 Date Received..: 04/03/09
% Moisture.....: 0.96

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	0.96	0.10	%	ASTM D 2216-90	04/28-04/29/09	9118505

Dilution Factor: 1

Wenck Associates, Inc.

Client Sample ID: 090401-NW-01-S TO 10-S-COMPOSITE

General Chemistry

Lot-Sample #....: G9D030338-005 Work Order #....: K9LD6 Matrix.....: SOLID
Date Sampled...: 04/01/09 Date Received...: 04/03/09
% Moisture.....: 1.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	1.6	0.10	%	ASTM D 2216-90	04/28-04/29/09	9118505

Dilution Factor: 1

Wenck Associates, Inc.

Client Sample ID: 090401-B18~01-S TO 10-S-COMPOSITE

General Chemistry

Lot-Sample #...: G9D030338-006 Work Order #...: K9LD7 Matrix.....: SOLID
Date Sampled...: 04/01/09 Date Received..: 04/03/09
% Moisture....: 2.1

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	2.1	0.10	%	ASTM D 2216-90	04/28-04/29/09	9118505

Dilution Factor: 1

Wenck Associates, Inc.

Client Sample ID: 090401-W-01-S TO 10-S-COMPOSITE

General Chemistry

Lot-Sample #....: G9D030338-007 Work Order #....: K9LD8 Matrix.....: SOLID
Date Sampled...: 04/01/09 Date Received..: 04/03/09
% Moisture.....: 1.8

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION--	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	1.8	0.10	%	ASTM D 2216-90	04/28-04/29/09	9118505
		Dilution Factor:	1			

Wenck Associates, Inc.

Client Sample ID: 090401-SE-01-S TO 10-S-COMPOSITE

General Chemistry

Lot-Sample #...: G9D030338-008 Work Order #...: K9LD9 Matrix.....: SOLID
Date Sampled...: 04/01/09 Date Received..: 04/03/09
% Moisture.....: 8.5

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	8.5	0.10	%	ASTM D 2216-90	04/28-04/29/09	9118505

Dilution Factor: 1

QC DATA ASSOCIATION SUMMARY

G9D030338

Sample Preparation and Analysis Control Numbers

<u>SAMPLE #</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
002	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
003	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
004	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
005	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
006	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
007	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267
008	SOLID	ASTM D 2216-90		9118505	9118327
	SOLID	EPA-14 1668		9106484	9110267

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: G9D030338 Work Order #....: K9LD2-SMP Matrix.....: SOLID
K9LD2-DUP

Date Sampled...: 03/31/09 Date Received...: 04/03/09

% Moisture.....: 2.2

DU

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
Percent Moisture	2.2	2.6	%	15	(0-20)	SD Lot-Sample #: ASTM D 2216-90	G9D030338-001	04/28-04/29/09 9118505
Dilution Factor: 1								

SOLID, 1668, WHO PCB congeners